

National

PITTSBURGH

PC

CORNING

*Glass
Blocks*
A MODULAR PRODUCT

THE NATIONAL CASH REGISTER CO

Robert Fitch Smith
Architect

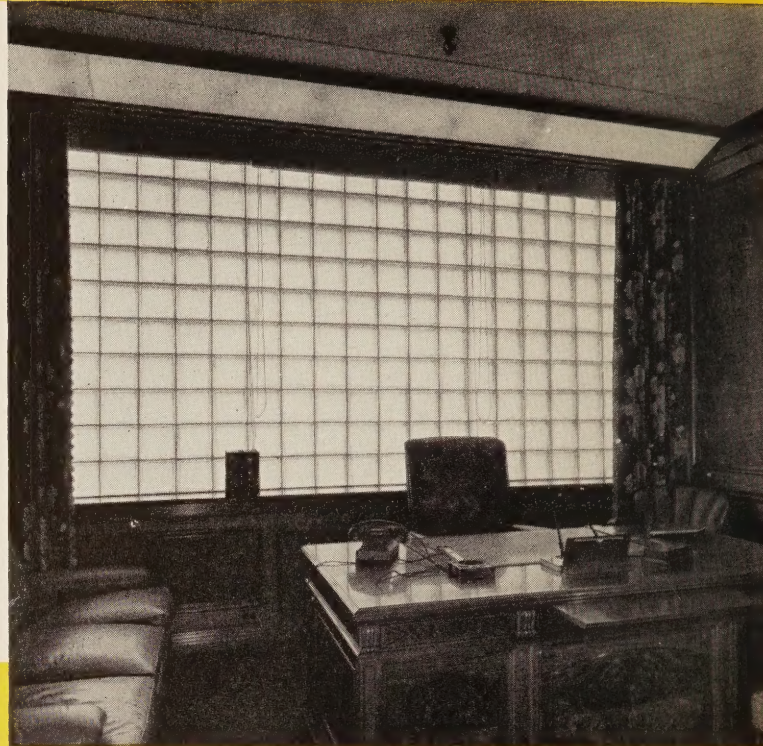
ILLUSTRATING MANY AND VARIED USES OF PC GLASS
BLOCK CONSTRUCTION IN COMMERCIAL AND PUBLIC
BUILDINGS, SCHOOLS AND HOSPITALS.

PC GLASS BLOCKS . . .

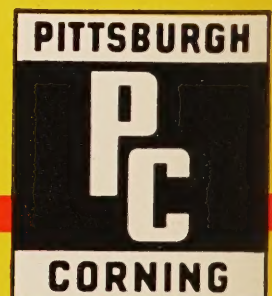
RARELY indeed in the history of building products has a material been developed which contributes so richly to all kinds of buildings and all kinds of people as PC Glass Blocks. To the small store and the towering skyscraper . . . to the schools, factories and offices, PC Glass Blocks have brought benefits significant and valuable. How can a single material have done all this? The answer lies in the exceptional combination of advantages to be found in PC Glass Blocks. Some or all of these advantages prove helpful to practically any type of building you care to name.

BEAUTY — PC Glass Blocks are, in themselves, an interesting and flexible decorative medium. Made from colorless, good-looking glass in a wide variety of patterns, they are attractive, modern and extremely smart in appearance. They improve building looks both outside and in. Glass block panels catch and reflect the daylight in a fascinating manner . . . sparkle and scintillate at night under electric lights. And their light-transmission qualities make for greater building beauty, because daylight is an unsurpassed decorator. People like a cheerful, clean-looking building such as PC Glass Blocks assure, whether they live there, work there, or come to buy there.

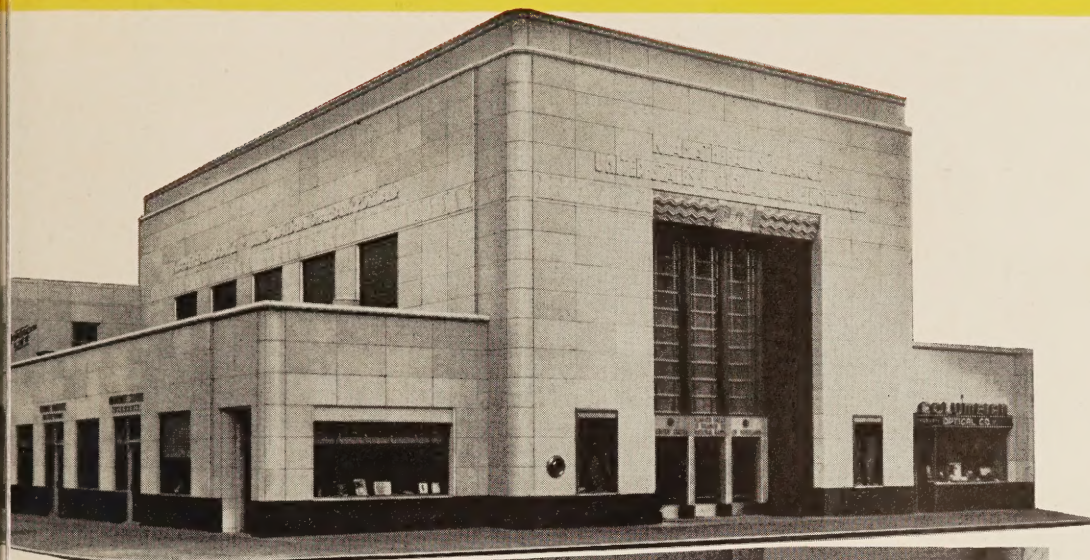
Louis Wirsching, Jr., Architect



LIGHT TRANSMISSION — PC Glass Blocks made from colorless glass, transmit floods of daylight into any room. This light is soft, diffused, pleasant, and uncomplicated by the glare which frequently results when windows are glazed with ordinary transparent glass. Glass block panels, therefore, make rooms gay, cheerful, well-lighted and bright . . . a factor of importance, no matter what kind of building is considered. Further, the daylight transmitted by PC Glass Blocks can be specially directed toward certain areas, can be specially diffused, depending upon the pattern of PC Glass Blocks selected.



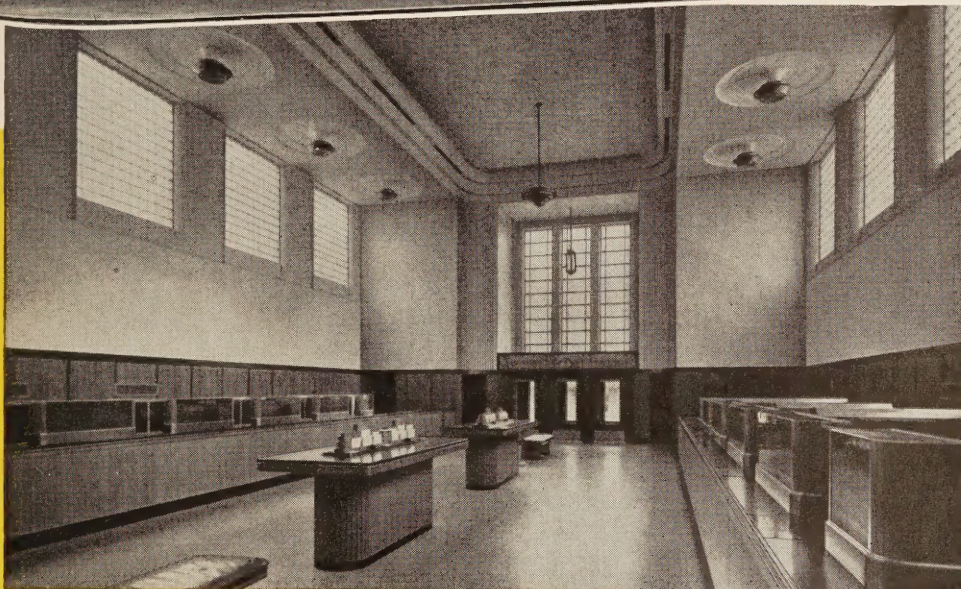
the material of a thousand uses



PRIVACY — With their light-transmission properties, PC Glass Blocks combine non-transparency. This means that PC Glass Block panels guard privacy, improve concentration, shut off distracting outside influences. It also means that they can screen off an unattractive or unwanted vista without sacrificing daylight to do so.

HEAT INSULATION — PC Glass Blocks are hollow. They contain a dead-air space, one of the best non-conductors of heat known. Consequently, a PC Glass Block panel has high insulation value. It provides the unusual advantage of affording the light-transmission properties of glass plus the approximate insulation value of a masonry wall. This results in easier control of temperature and humidity within a building, in lower heating costs. Air-conditioning systems are more efficient when light areas are built with PC Glass Blocks, because their low heat conductance and their low solar heat transmission materially reduce the air-conditioning load.

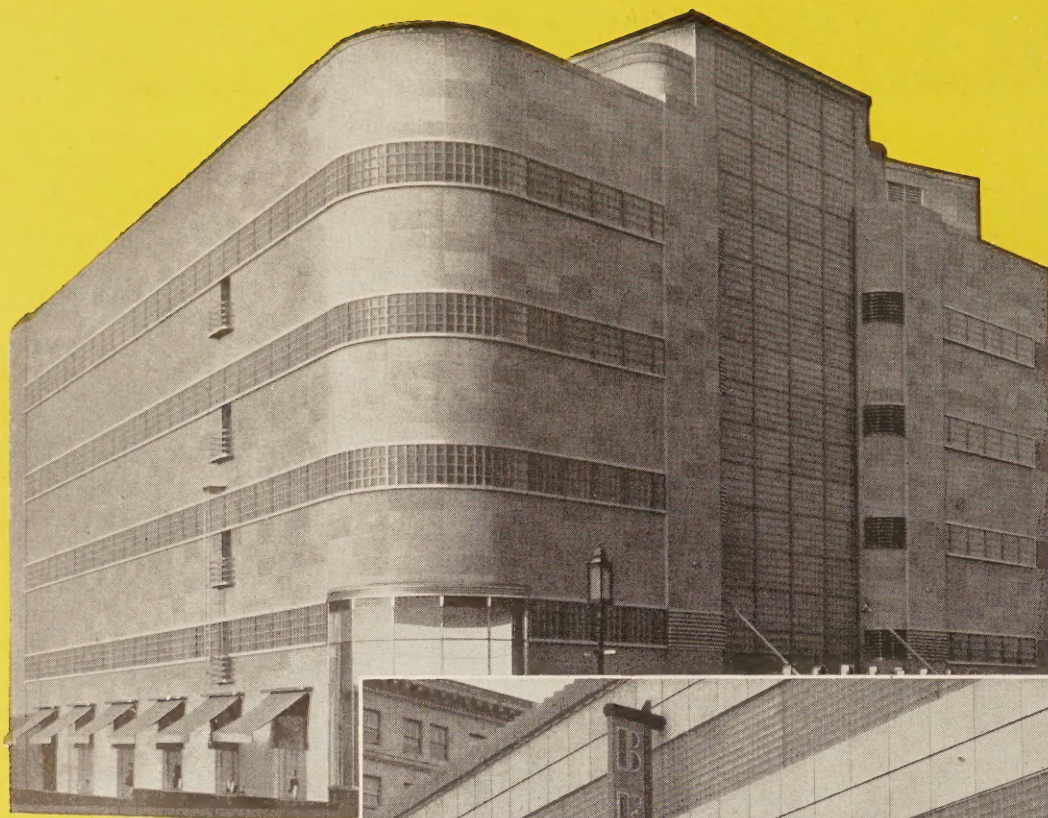
Kruse and Parish, Architects



Sutton, Whitney and Aandahl, Architects

SOUND INSULATION — PC Glass Block panels substantially reduce distracting and undesirable outside noises. This feature, combined with the non-transparency of the blocks, makes for greater privacy and quiet in homes, schools and hospitals, increased working efficiency in plants, offices and public buildings.





Stiles O. Clements, Architect

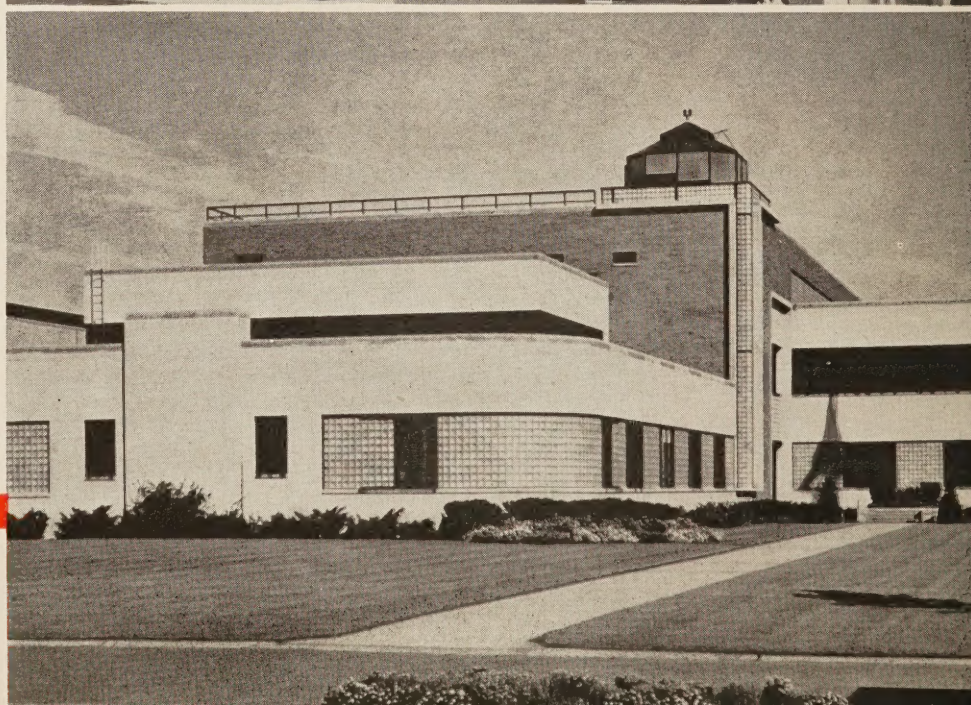
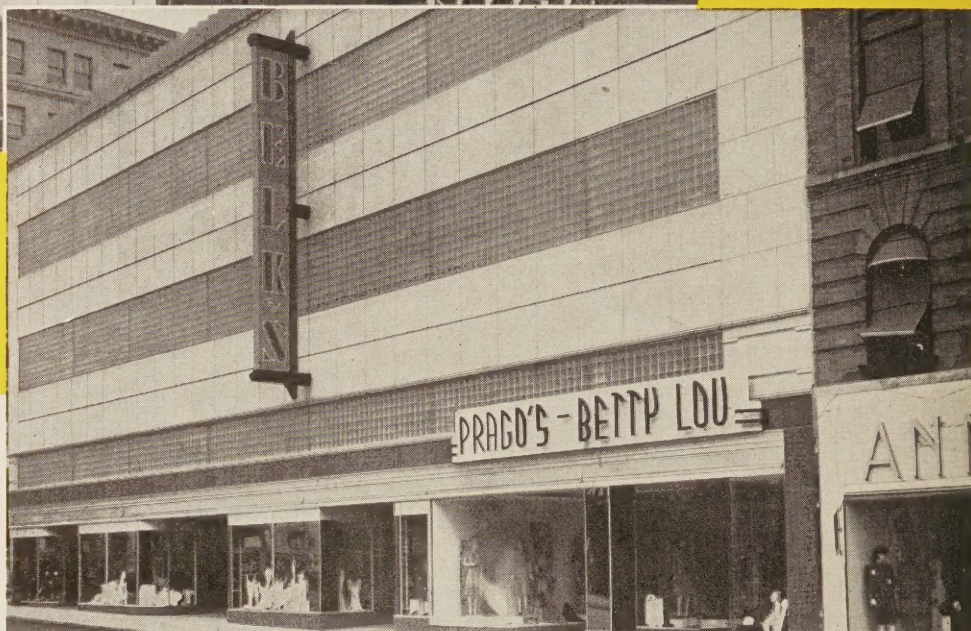
C. C. Hartman, Architect

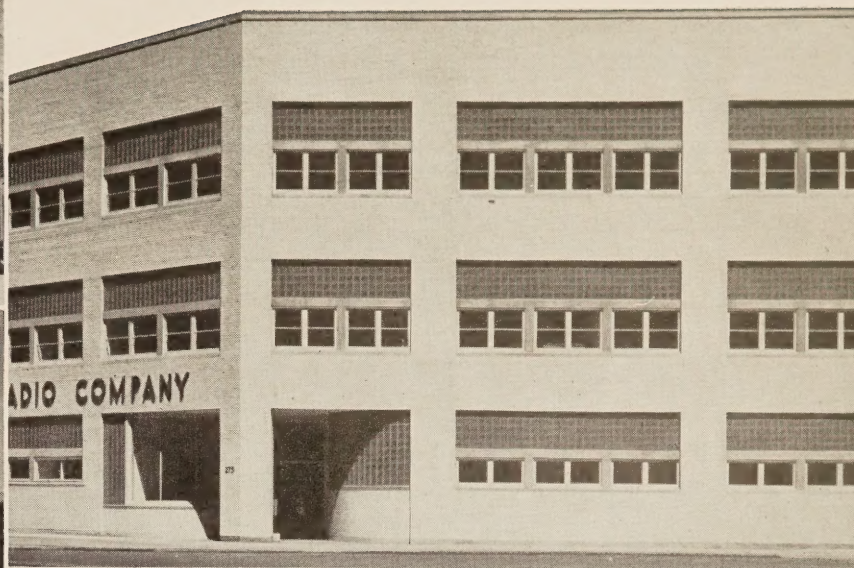
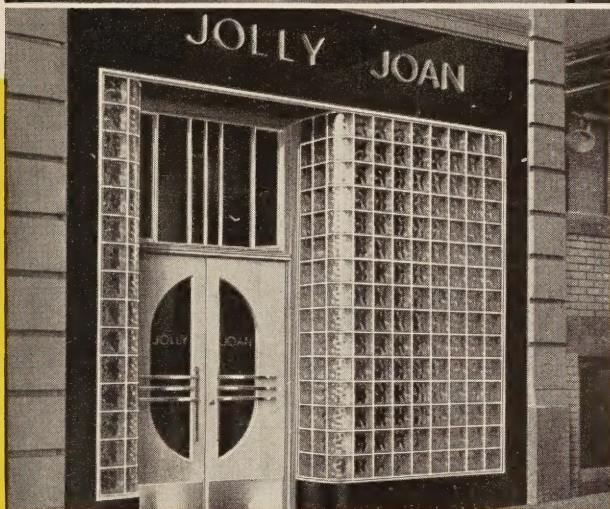
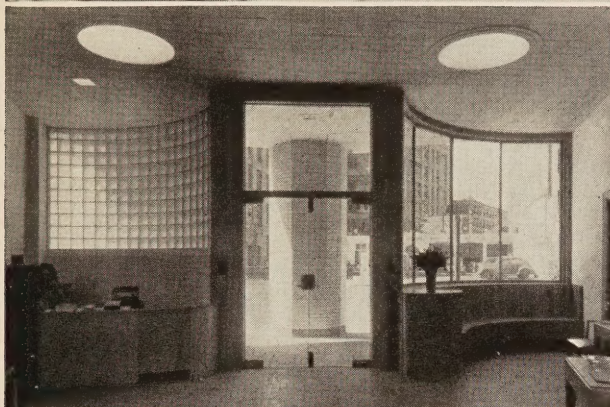
LESS MOISTURE CONDENSATION

— Condensation of moisture on window areas is frequently a problem. Unsightly frosted windows, dripping surface moisture with its attendant messiness, can be avoided to a large extent, by the use of PC Glass Block panels.

NO DIRT INFILTRATION — Dirt and grit cannot filter through panels of PC Glass Blocks to add to the cleaning burden of the housewife or the cleaning expenses of other types of buildings. In regions with smoky, dusty, or sooty atmosphere, this quality of glass block construction is especially important.

EASY CLEANING — PC Glass Blocks are exceptionally easy to clean. The glass block panel is cleaned as a unit, with a damp cloth, or with a brush and hose, in the simplest manner. There is just one flat area of glass and mortar to clean . . . no muntins or cross sash to complicate the cleaning process or slow it down.





Donald Des Granges, Architect

Cook & Jewel, Architects

G. Stanley Wilson, Architect

LOW MAINTENANCE — The easy-cleaning properties of glass blocks reduce cleaning expenses. There is no sash to rot or corrode in a glass block panel . . . and consequently, the expenditure usually required for periodic repair or replacement of sash is eliminated. The panel of PC Blocks practically takes care of itself. And PC Glass Blocks make permanent panels . . . not easily marred or broken. If an individual block ever needs replacing, it can be done easily and inexpensively by a regular mason.

PATTERNS — There are various attractive patterns, sizes and types of PC Glass Blocks to choose from. See pages 24 and 25 for more complete details.

A TESTED PRODUCT — PC Glass Blocks have proved their decorative and practical versatility in almost every type of installation. The scores of ways in which they may be used advantageously are daily being added to, as new possibilities are explored. The following pages contain a few additional pictured examples out of the hundreds in our files of how PC Glass Blocks have been used successfully in various kinds of buildings. We believe you will find them interesting.



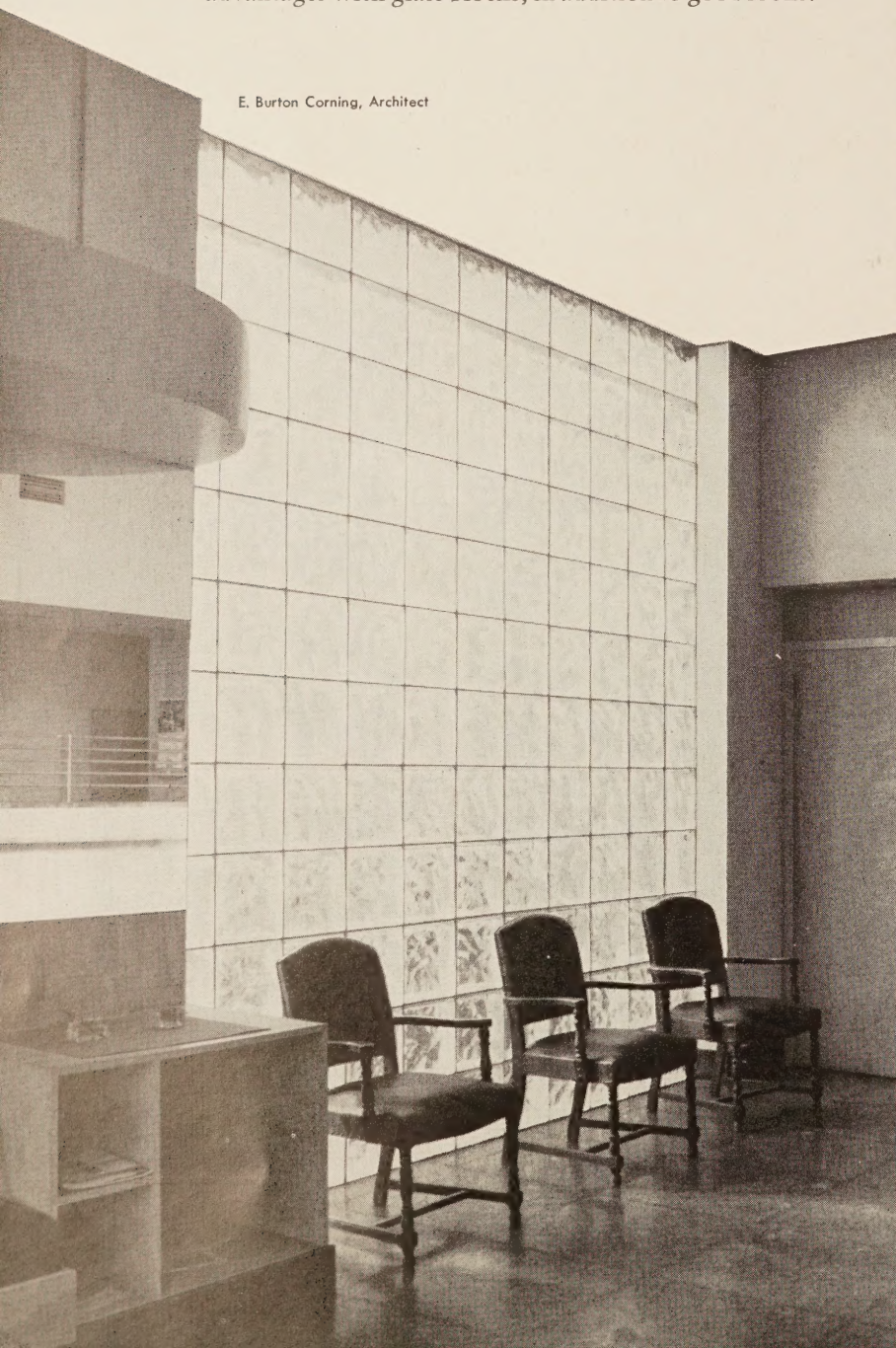
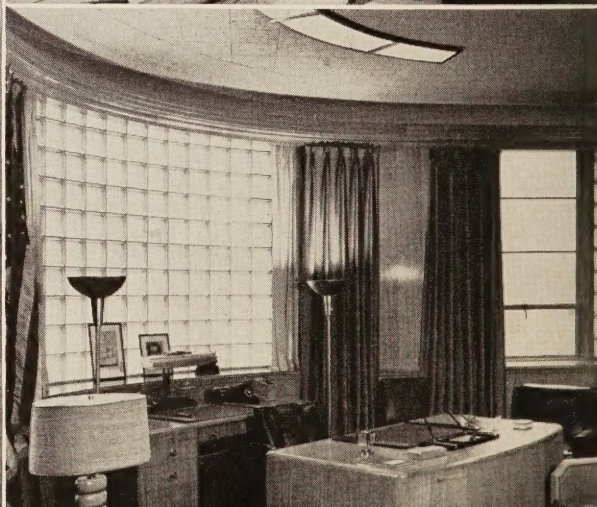
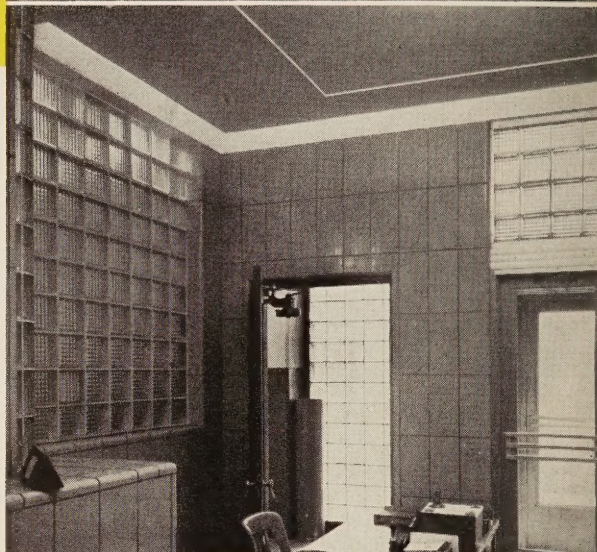
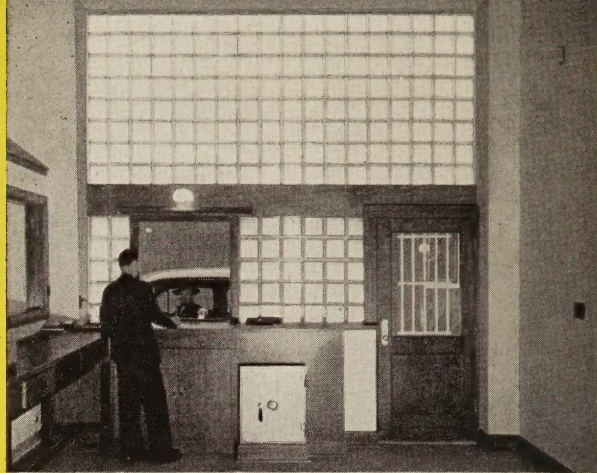
PC Glass Blocks

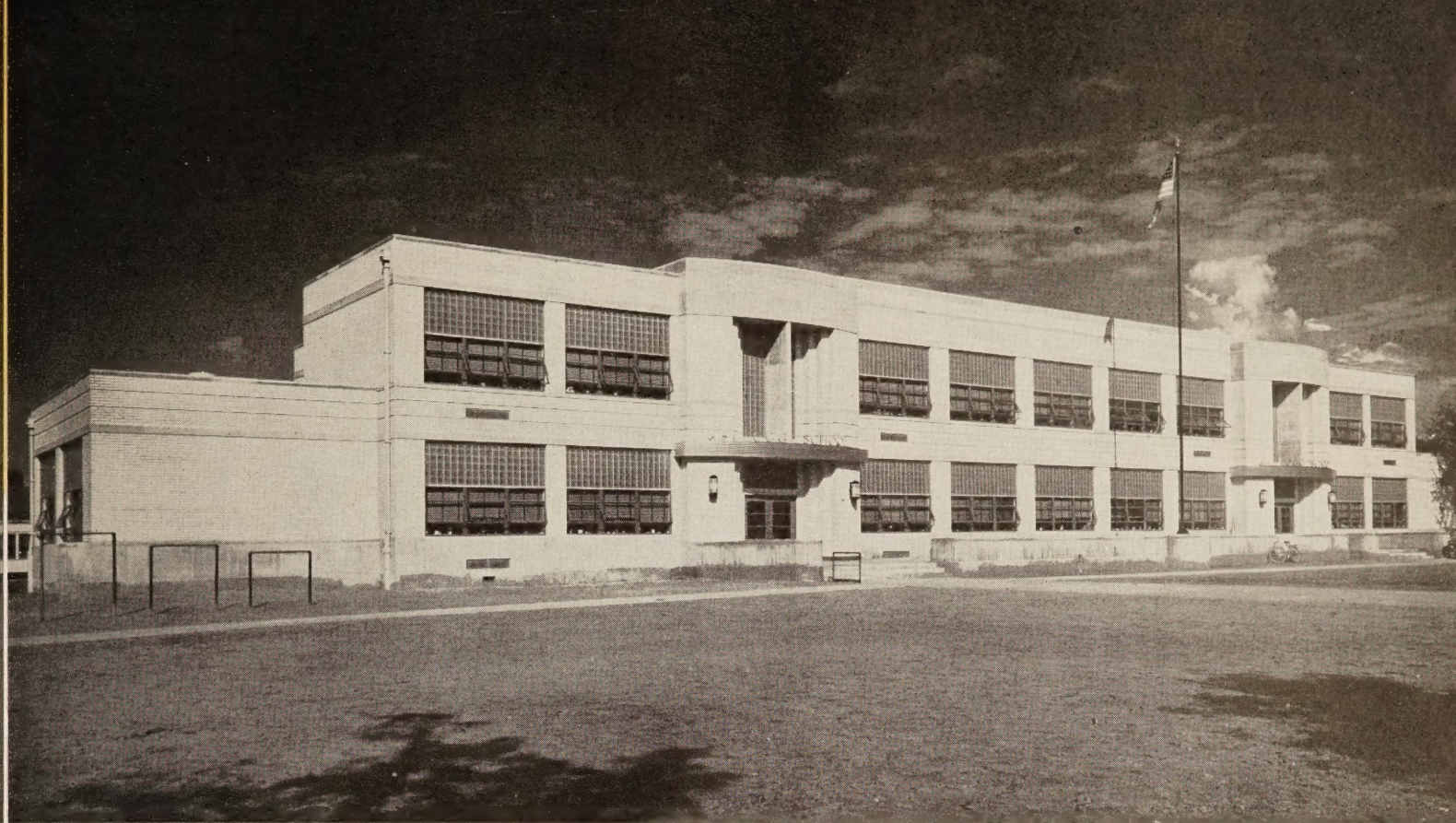
IN OFFICES

Walters W. Ahlschlager, Architect

SMART, MODERN OFFICES are easy to achieve when you call on PC Glass Blocks for help. Daylight, privacy, quieter rooms, low maintenance, are just a few of the advantages with glass blocks, in addition to good looks.

E. Burton Corning, Architect





Overend and Boucher, Architects

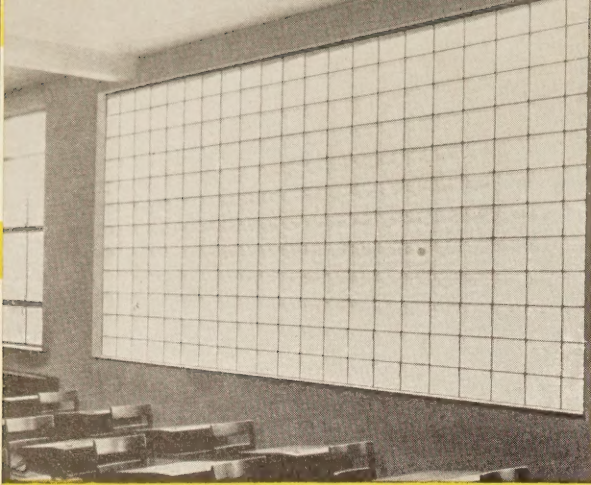
PC GLASS BLOCKS...

*offer ample light, beauty
and other important advantages*

PC Glass Blocks are unusually well-suited for use in school construction. They provide greater operating efficiency for the building itself . . . and greater comfort for the students and instructors who occupy it. PC Glass Blocks have the unique distinction of being the only building material capable of providing, in one unit, abundant diffused daylight, ease of cleaning, low maintenance cost and adequate insulation.

SCHOOLS...

Orrin Thomas, Architect



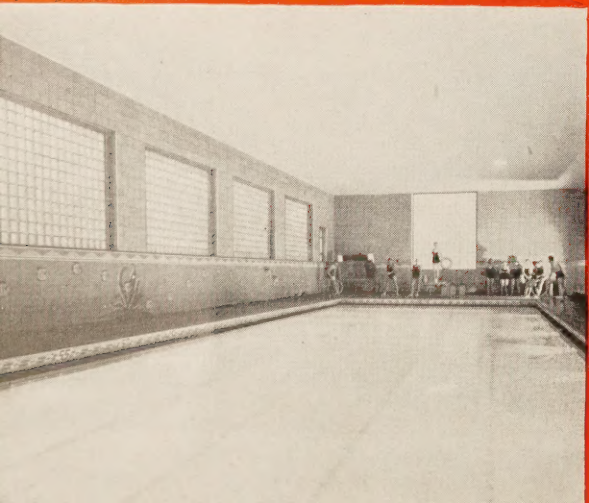
Casmir J. Pellegrini, Architect



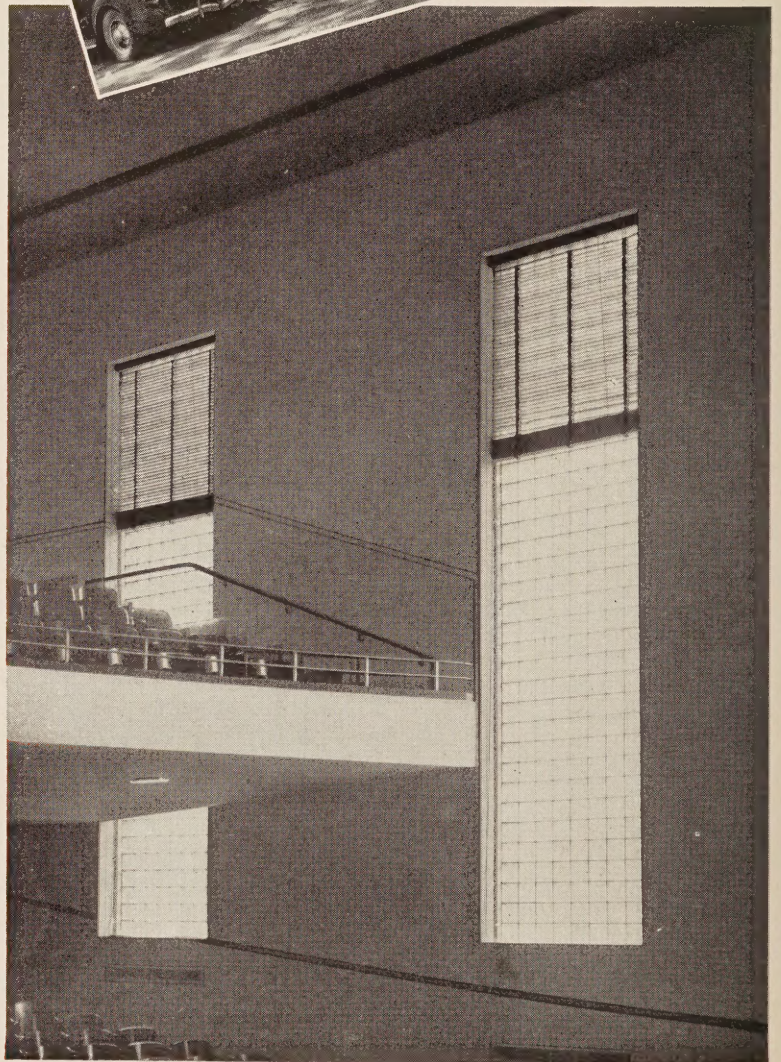
Overend and Boucher, Architects



Orrin Thomas, Architect



Warren S. Holmes Co., Architects

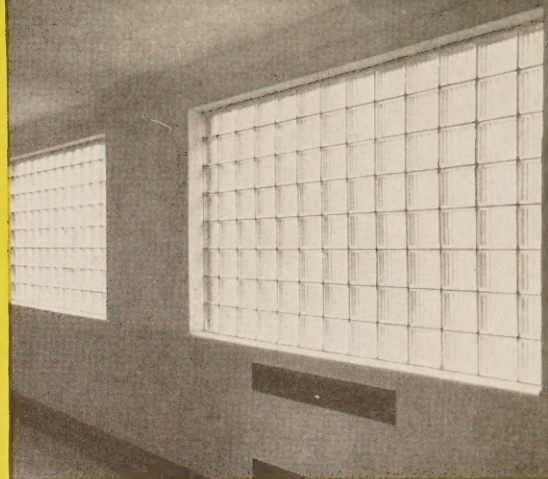


Althouse & Jones, Architects

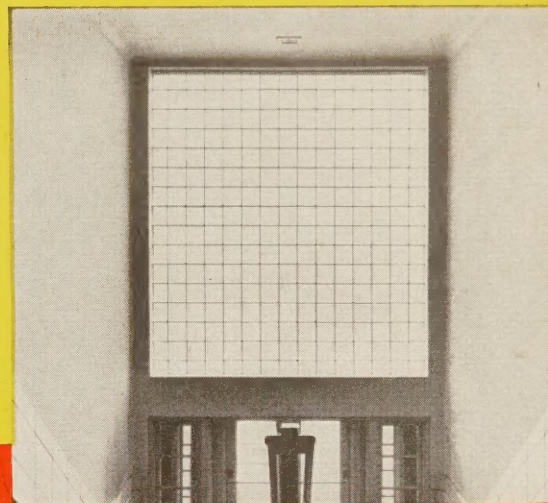
THE cheerful surroundings provided by PC Glass Blocks help students enjoy their studies. There will be less eyestrain among pupils when classrooms are filled with mellowed daylight. Brighter corridors and stairways reduce the possibility of accidents. Solid panels of PC Glass Blocks safeguard health by eliminating dirt infiltrations and aid concentration by softening outside noises.

PC Glass Blocks are suitable for any style of construction. Blending harmoniously with the architectural design of old or new buildings, they are ideally suited for sash replacement in older school buildings, as well as for new construction.

Louis H. Gerding, Architect



Charles E. Firestone, Architect

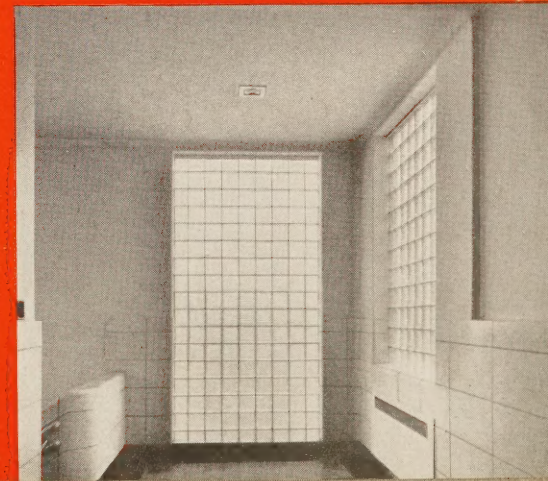


Louis H. Gerding, Architect



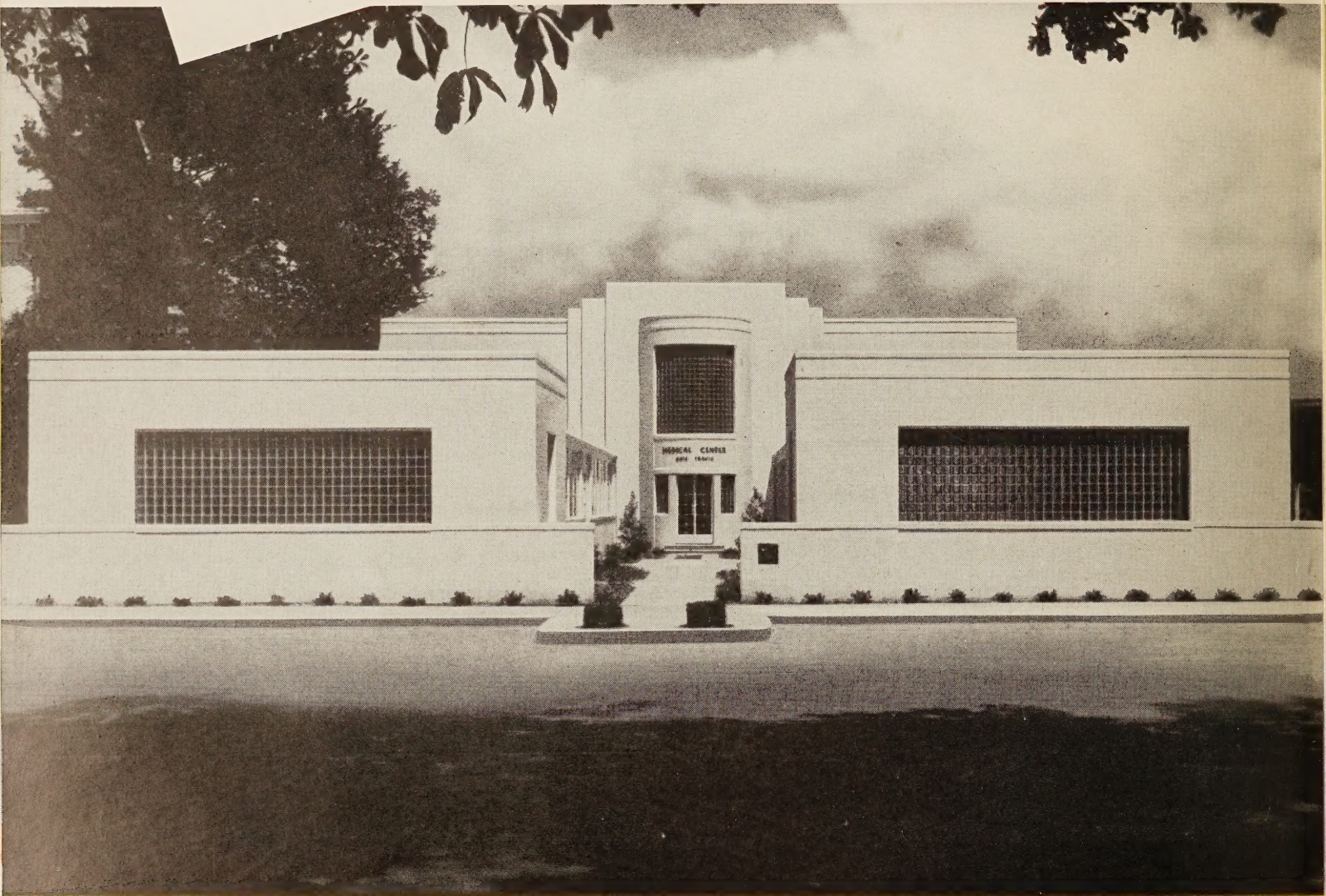
▲ Warren S. Holmes Co., Architects

Louis H. Gerding, Architect ▼



PC Glass Blocks **IN HOSPITALS**

Elliott and Turner, Architects



HOSPITAL BUILDINGS can be more beautiful — and also more utilitarian — when you take full advantage of the versatile qualities of PC Glass Blocks. Large attractive expanses of glass blocks harmonize with all types of hospital design and construction.

They supply ample floods of diffused daylight for operating rooms, wards and corridors — for lecture rooms, kitchens and laundries — for foyers and stairwells. Translucent, but not transparent, they insure privacy wherever they are installed.

PC GLASS BLOCK PARTITIONS

prevent passage of distracting noise to or from the hospital nursery. Prevent infiltration of irritating dust. Easily kept immaculately clean. Provide subdued, restful light without harmful glare.

In operating rooms also they present an excellent opportunity for PC Glass Block panels to prove their practical advantages. A large supply of diffused daylight is essential here . . . and PC Glass Blocks supply it. They insulate effectively against outside noises. They also permit better control of temperature and humidity.

Smith, Carroll and Johanson, Architects



Robert A. Messmer, Architect

SANITATION is important in hospitals . . . and PC Glass Block panels qualify outstandingly in this respect. A hose, a long-handled brush or a damp cloth permits quick and thorough cleaning of the panel. Further, the non-transparency of these blocks provides perfect privacy in hospital installations, yet supplies ample, glareless diffused daylighting.

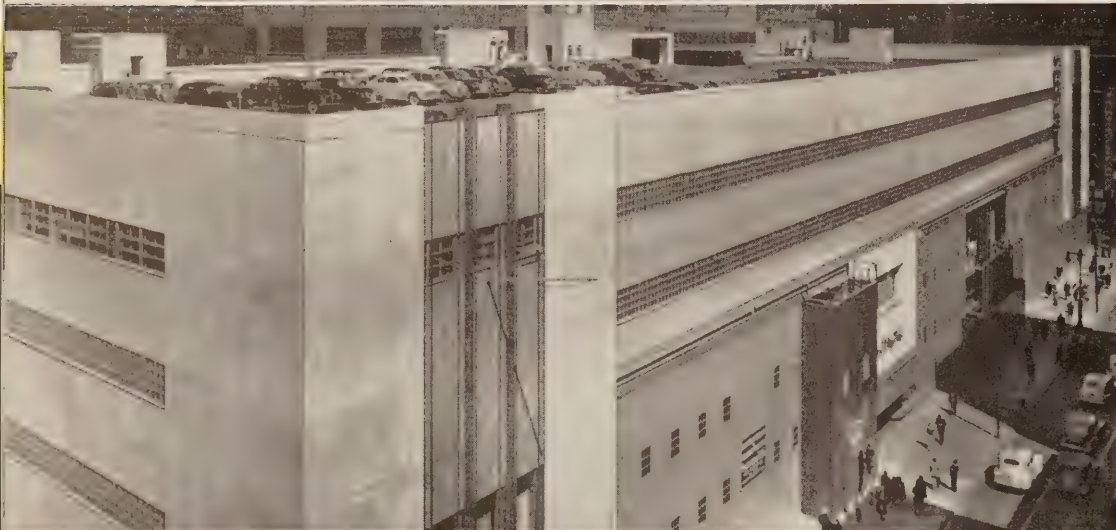


PC Glass Blocks

IN PUBLIC BUILDINGS



LaRoche and Dahl, Architects



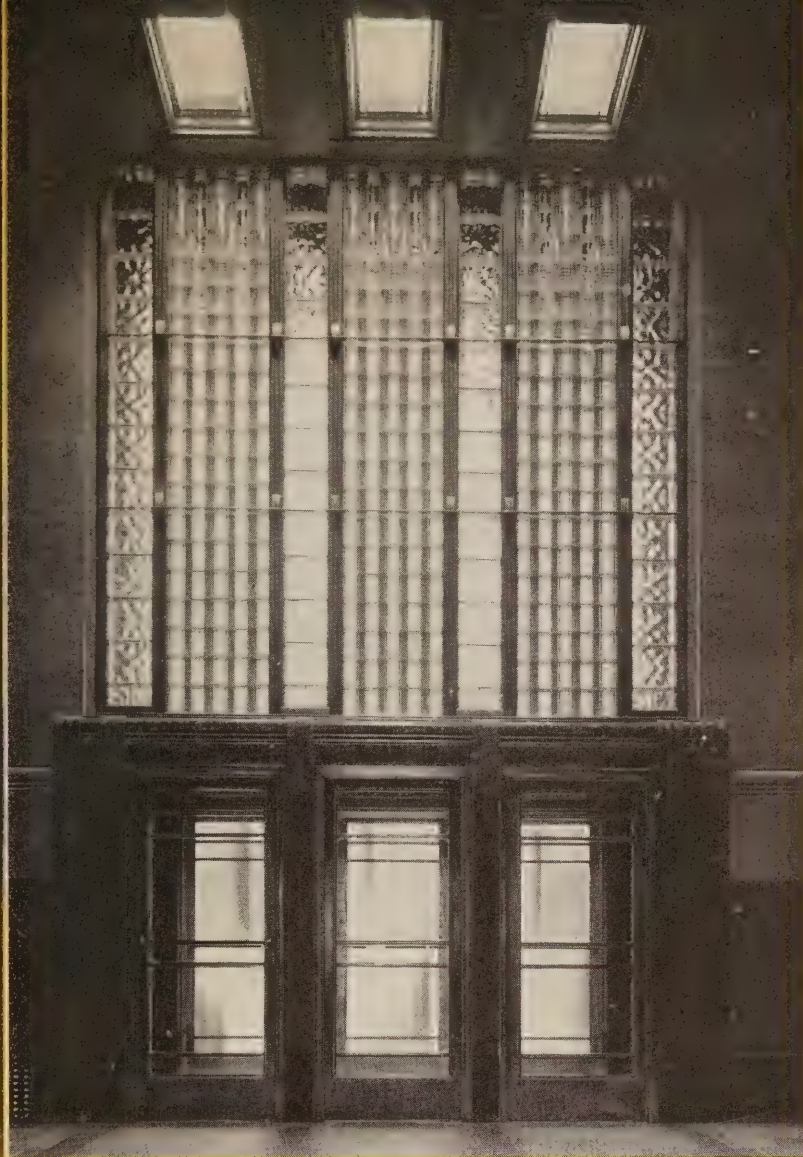
DAYLIGHT AND GOOD LOOKS are two of the vital advantages PC Glass Blocks impart to this large department store. (Left) The glass block panels make the salesrooms gay, cheerful and well-lighted . . . the kind of rooms where customers like to shop. The modern appearance of the store's exterior brings the customers in.

The Ballinger Company, Architects



Tinsley, McBroom and Higgins, Architects

BUILDING AUDITORIUMS (Left) daylighted by PC Glass Block panels are becoming more and more numerous. And naturally so . . . because while the blocks transmit daylight generously . . . and even diffuse or direct the light as desired, depending upon the pattern used . . . they also do away with outside distractions, and improve acoustics by deadening outside noises.



Messrs. Sproat and Rolph, Architects



Eugene John Stern and Wittenberg and Delony, Architects



Albert Kahn, Architect

TRUE ARCHITECTURAL BEAUTY is achieved in these modern buildings by the considered use of PC Glass Blocks and wrought metal over the entrances. The possibilities for building beauty possessed by these blocks are almost limitless.

IF A CALLER HAS TO WAIT (Above) . . . how pleasant to wait in a bright, handsome reception lobby like this, made restful by panels of PC Glass Blocks.

PC GLASS BLOCKS . . .

John M. Hatton, Architect

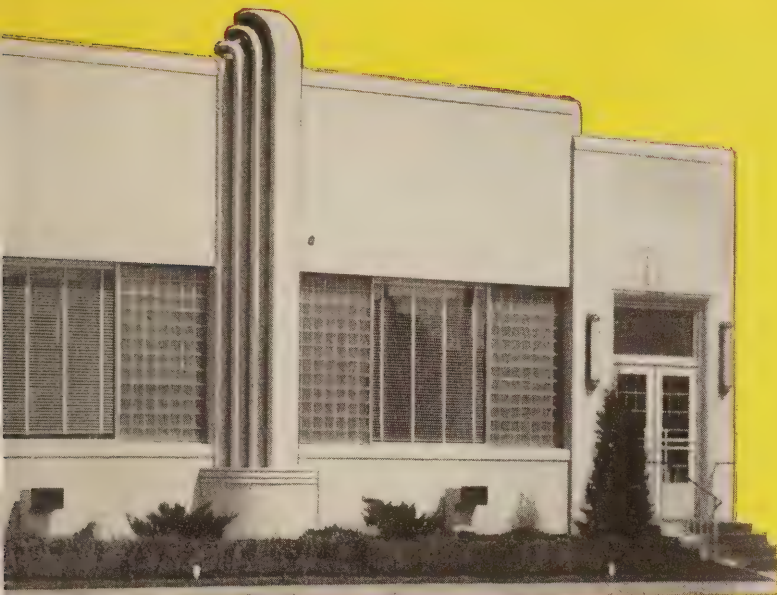


Frantz and Spence, Architects



A STRIKING COMBINATION of PC Glass Blocks and transparent Herculite Plate Glass Doors makes store fronts like this almost irresistible to the shopper.

for Retail Shops and Stores



M. O. Foss, Architect

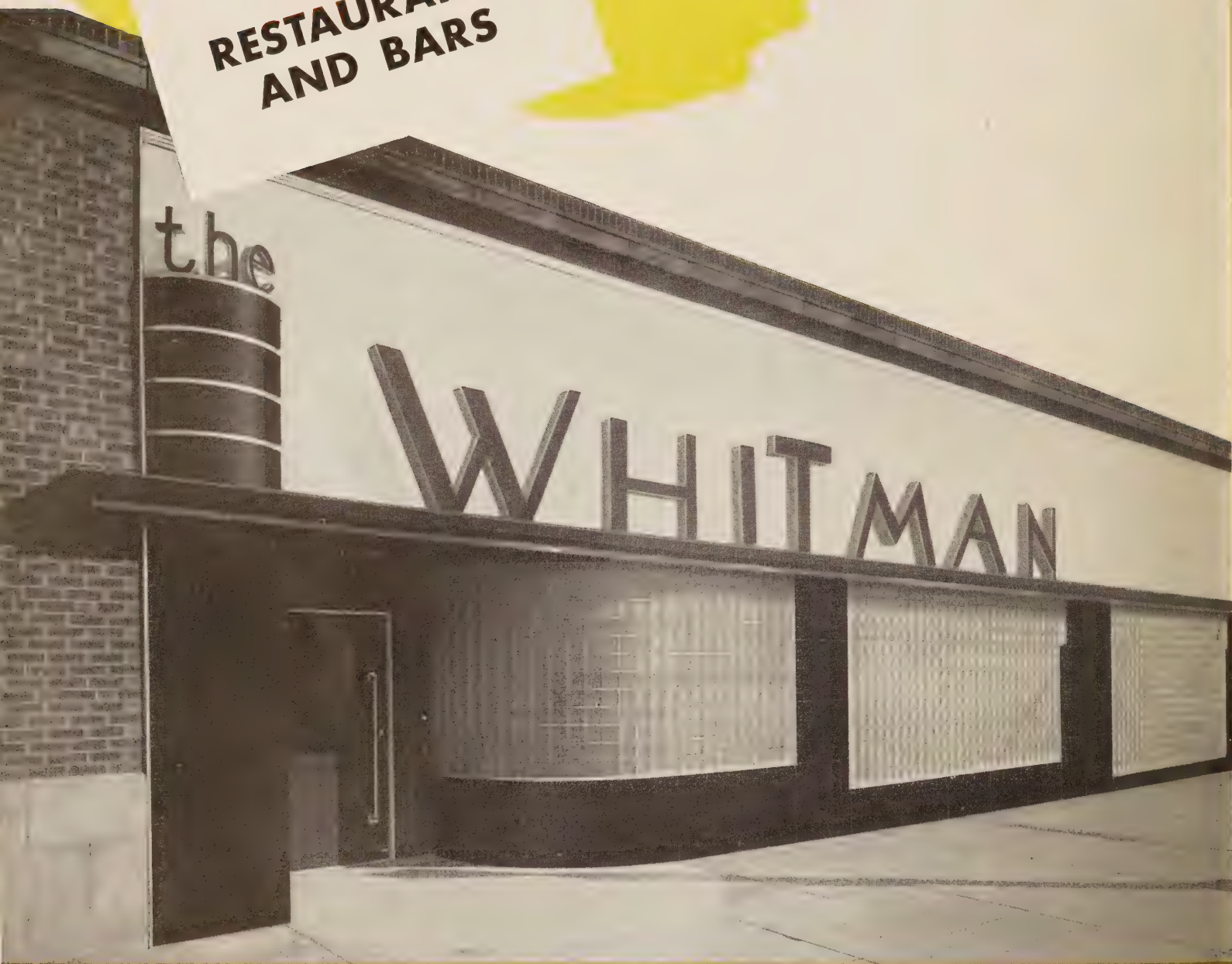
John M. Hatton, Architect



SALES APPEAL is a vague and hard-to-describe thing . . . but PC Glass Blocks have proved that they can give it to a retail establishment in generous quantities. The store using these blocks is smart, attractive and inviting in appearance.

PC Glass Blocks

**IN
RESTAURANTS
AND BARS**



Walter DeMordaunt, Architect

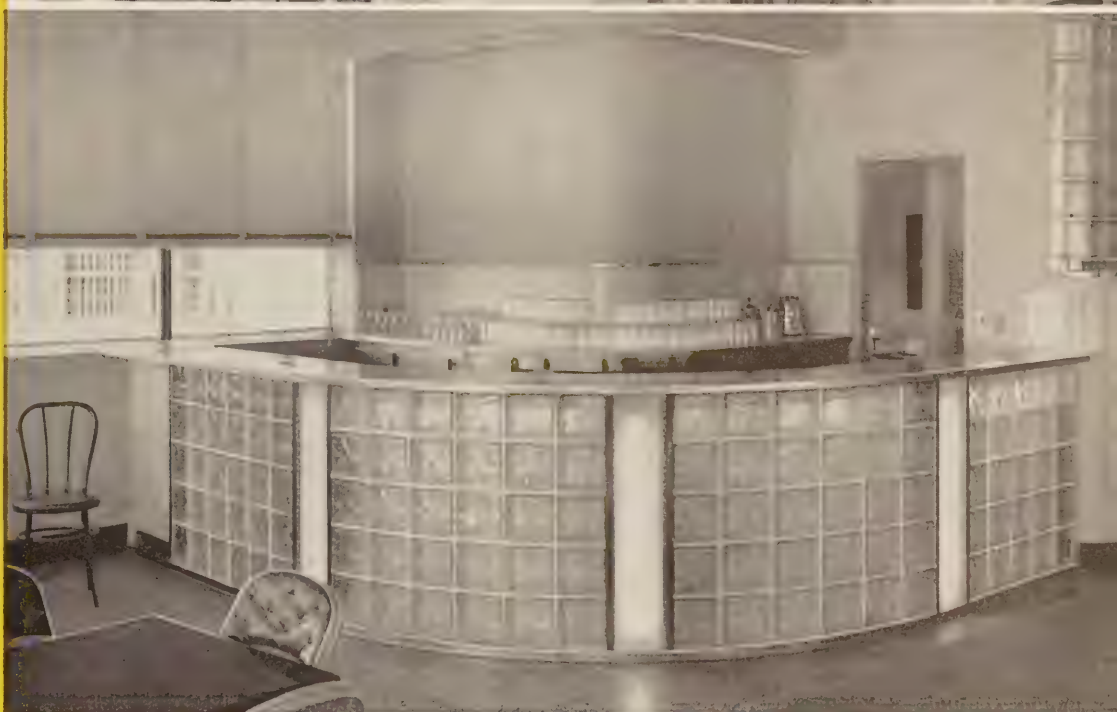
FOOD LOOKS TASTIER in daylight (Right) . . . and PC Glass Block panels insure a plentiful supply of daylight in your restaurant. They make the atmosphere gayer and more cheerful . . . and you know how valuable that is. Furthermore, glass block panels keep out curious eyes . . . your patrons dine in quiet and privacy.

George Dahl, Architect



IT'S THE SMART LOOKING BAR that gets the business (Right). And there's no better way to make your bar, restaurant or lounge a sure-fire gathering place for smart, spending people than to give it the appeal of up-to-the-minute PC Glass Blocks. In addition, PC Glass Blocks cut heating costs, lower maintenance, solve interior lighting problems.

Robert and Company, Architects and Engineers



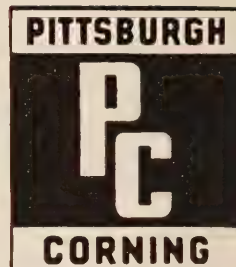
LUNCH COUNTER A LA MODE is this one on its gleaming pedestal of PC Glass Blocks (Right). The good looks of the blocks attract the trade . . . and you'll find that cleaning becomes a simple matter . . . because an occasional wiping with a damp cloth is all glass blocks require.

Norman Dimen, Architect



PC Glass Blocks

IN THEATRES



T. M. REG. U. S. PAT. OFF.



Pereira and Pereira, Architects

IN A HIGHLY COMPETITIVE FIELD, PC Glass Blocks help the theatre owner and manager to attract patrons to his ticket window. These blocks bespeak a modern, comfortable house with the best pictures. The kind of theatre it's a pleasure to attend.

A THEATRE LIKE THIS says to the movie-goer: "Come in. This is a modern theatre where the entertainment is of the best. You'll have a very pleasant evening." And the reason it makes that impression on people is that it looks so attractive with its large curved panels of PC Glass Blocks.



Edwin Paul Lewin ,Architect

WHETHER A THEATRE IS LARGE or small, there are places where PC Glass Blocks can be used to advantage to give it that extra appeal and invitation to the public that means "box office."



Wetherall and Harrison, Architects

PC Glass Blocks

FOR SASH REPLACEMENTS

ORIGINALLY a block of large show-rooms, this building became a manufacturing plant for precision products when glass block panels supplanted show windows. Now delicate machinery and work in progress are protected from infiltration of destructive gritty dust, secret processes are safe from prying eyes, yet plenty of light is supplied to all parts of large workrooms.



H. I. Feldman, Architect



BEFORE



AFTER

IN THIS DYEHOUSE ordinary sash could not withstand the warm, humid, acid atmosphere, which causes so many materials to rust, rot, check and warp. PC Glass Block panels solved the problem because they need no repairs or replacements even under these extreme conditions, cut down condensation and heat losses, are easy to keep clean — and also diffuse ample daylight, even into remote corners of the plant.

TECHNICAL DATA

THERMAL INSULATION

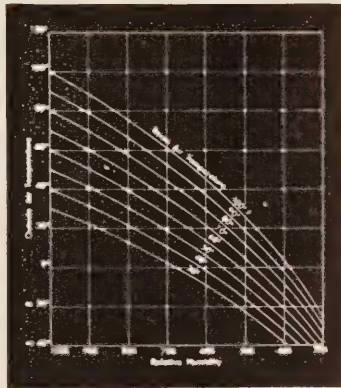
Tests run during the past several years have established values for the over-all heat transfer coefficient "U" as follows: under still air conditions: ribbed face block 0.38, smooth face 0.40; with 15 mile per hour wind: ribbed face block 0.46, smooth face 0.49. In computing heat losses through panels for design purposes, it is recommended that a "U" value of 0.49 be used for all block sizes and face patterns.

SURFACE CONDENSATION

Due to the high insulating value of PC Glass Blocks, condensation will not start forming on the room side of glass block panels until the outside air has reached a temperature much lower than that necessary to produce condensation on single-glazed windows. The accompanying chart shows at what temperatures condensation will form.

OUTDOOR TEMPERATURE REQUIRED TO PRODUCE CONDENSATION ON THE ROOM SIDE SURFACE OF PC GLASS BLOCK PANELS

(For example, the chart shows that with inside air at 70° F. and relative humidity at 40%, condensation will not begin to form on the interior surfaces of a glass block panel until an outdoor temperature of -14° is reached. Under similar conditions with single-glazed steel sash, moisture will begin to form when the outdoor temperature reaches +33° F.)



LIGHT TRANSMISSION

Light transmission through the faces of individual glass blocks has been measured by two somewhat different methods in the absence of any generally accepted standard. Average values for each PC pattern are:

Pattern	% Transmission of Incident Light
Argus.....	80
Argus Parallel Flutes.....	80
Bristol.....	70
Decora.....	80
Reeded-Decora.....	80
Druid.....	80
Essex.....	50
Prism Light-Directing.....	65
Saxon.....	80
Vue.....	85
Bristol LX-75.....	55
Druid LX-75.....	60

Additional data on the performance of the Essex and Prism Light-Directing units are given on Page 22.

CRUSHING STRENGTH

Repeated tests made on square wallettes laid up with PC Glass Blocks show a minimum panel compressive strength of 400 to 600 pounds per square inch of gross loaded area.

This crushing strength is well above that of many accepted masonry constructions, and is entirely adequate to resist safely the forces created by conditions within the glass block panels themselves.

However, glass block construction should never be used for loadbearing walls or panels. Adequate provision must be made for the support of construction above glass block panels, and expansion joints must be provided at head and jambs of all panels in exterior walls.

SOUND INSULATION

Glass block panels have sound insulation properties equal to or better than other forms of masonry construction having equal weight per unit surface area, and are decidedly superior to single-glazed sash.

Tests give sound reduction factors for standard glass block panels of 37.6 to 42.0 decibels, a value closely approximating that for a 4-inch hollow clay tile wall plastered both sides.

BOND STRENGTH

PC Glass Blocks have a special grit-bearing, moisture-and-alkaline-resisting, plastic coating on all mortar edges. This insures a complete and permanent bond between the glass and the cement mortar and provides a panel construction having a high degree of wind resistance and watertightness.

WIND RESISTANCE

From wind pressure tests on PC Glass Block Panels ranging in area from 50 sq. ft. (5'x10') to 256 sq. ft. (16'x16'), it has been found that any panel properly supported at its edges and within the area limits recommended will withstand a wind load of 20 pounds per sq. ft. with a safety factor of at least 2.7.

SOLAR HEAT GAIN

The use of glass blocks for light-transmitting areas results in a marked reduction in the total solar heat gain as compared with ordinary windows. This factor is of considerable advantage in buildings that are properly air conditioned, but does not eliminate the need for adequate ventilation or shading in non-air-conditioned rooms.

Based upon extensive tests of standard patterns, suggested figures for design computations are a maximum hourly rate of 41 B.T.U. and maximum daily rate of 250 B.T.U. total heat gain per square foot of glass block panel on South exposure, 40 degrees North Latitude for August 1.

More complete data on solar radiation appear in the current Guide of the American Society of Heating and Ventilating Engineers.

WEATHER RESISTANCE

Under all sorts of weather conditions, PC Glass Block construction has proved its durability. Tests of panels subjected to repeated cycles of heating, water spray and freezing show no sign of cracking or other structural deterioration, although temperatures well above and below those encountered in any exposure have been regularly used.

WATER-TIGHTNESS

Experience, both in the laboratory, where some 4,000 sq. ft. of panels 8'x10' in size have been tested, and also in the field where records of a number of jobs are available, conclusively indicates that properly constructed panels of PC Glass Blocks will be free from leakage. After long, driving rain storms, the most that has been observed is a slight darkening of the mortar joints.

ESTIMATING DATA

(For 100 sq. ft. of panel laid with 1/4-in. visible mortar joints)

Size of Block.....	6"	8"	12"
Number of Blocks..	400	225	100
Weight of Panel....	2000 lbs.	1800 lbs.	1900 lbs.
Volume of Mortar..	4.3 c.f.	3.2 c.f.	2.2 c.f.

(For 1 cu. ft. of Mortar, based on 1 1/4 Mix by Volume)

Cement.....	1 1/4 bag
Lime.....	1/4 bag
Sand.....	1 cu. ft.
Waterproofing Comp., Pittsburgh NV-3389..	1/2 pint

PC GLASS BLOCKS ...

FACTS ABOUT THE PRISM LIGHT-DIRECTING GLASS BLOCKS

It is often desirable to provide a means of carrying daylight as far as possible into a room and thus provide daylighting for workers who are located far from outside walls.

The PC Prism Light-Directing Glass Block was designed for this purpose. This block controls the direction of light transmitted by the block. Because the transmitted light is bent upward, a more uniform distribution of interior illumination is possible when used with a reflecting ceiling. Objectionable brightness and glare are reduced when viewed from the horizontal or below. The result is a more even distribution of daylight, with a reduction in the intensity of direct sunlight falling on working areas near outside walls. This control of transmitted light is accomplished by means of horizontal prisms on the two inside faces. Incident sunlight is so refracted that the greater part of the transmitted light is directed toward the ceiling, with a minimum directed downward. The prism construction is all on the inside, and thus the light-directing surfaces are protected from damage or dirt. Light-Directing Blocks should be laid only above eye level (5'6" to 6' above the floor), so that the light will be directed away from the eyes of room occupants. Correct control of light is possible only when blocks are set in proper position. Blocks are marked to indicate correct setting.

Light Transmission and Distribution

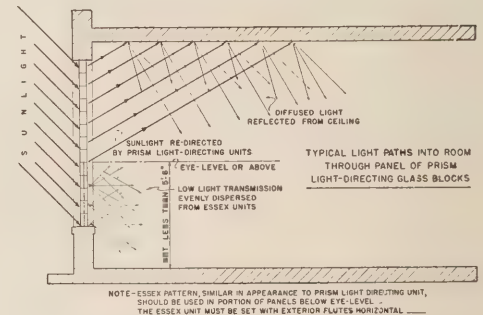
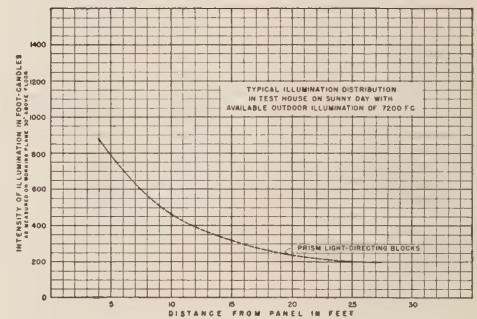
The PC Prism Light-Directing unit has an unusually high light-transmission factor for this type of glass — about 80% that of the Argus and other standard patterns. The diagrams at the right illustrate the performance of the prisms, and show a typical illumination curve. Note the high foot-candle readings well back in the room, and the low ratio between the maximum and minimum — always a desirable feature in lighting.

Solar Heat Transmission

Tests show that the total heat gain is approximately 85% that of the standard Argus Glass Block and about half that of single-glazed sash. The benefit to room occupants is even more pronounced, however, since they suffer no bodily discomfort as a result of the direct rays of the sun.

Use in Combination with the Essex Block

Where panels containing Prism Blocks would normally extend below eye-level, it is recommended that the complementary ESSEX Block be used in the lower portion of the panel. With this combination, advantage is taken of the most valuable qualities of each of these blocks to provide best lighting conditions. The Essex Block is similar in appearance to the Prism Unit. It must be installed with exterior flutes in a horizontal position.



FACTS ABOUT THE ESSEX GLASS BLOCK

The use of large glass areas for daylighting, while effective for cloudy days, frequently presents a problem of light distribution — especially in direct sunlight. Reduction of daylight intensity by the use of awnings or shades has frequently resulted in the impairment of the efficiency of the natural illumination. The diffusing qualities of standard glass block patterns have partially solved this problem, but their use in extensive areas presents the same problem as single glazing — though to a lesser degree.

The solution is the use of ESSEX pattern Glass Blocks. They transmit a relatively low amount of incident light, evenly dispersed, and provide best lighting conditions even when large glass areas are required for adequate illumination of large floor areas. Correct control of light is possible only when blocks are set with exterior flutes in a horizontal position.

Light Transmission and Distribution

Light transmission of the ESSEX Glass Block is of an evenly dispersed character and is approximately 60% of the Argus and other conventional patterns.

Solar Heat Transmission

Tests show that the total solar heat gain through glass block panels is made up of two factors — radiant heat directly transmitted into the room, and heat first absorbed by the panel itself and then partly re-radiated and partly conducted into the room. The interior vertical prisms and exterior spreading flutes of the ESSEX Block account for the very low figure for total heat gain — about 60% that of the Argus and some 35% that of single glazed sash. This reduction of solar heat will appreciably reduce cooling loads in air-conditioned rooms, but

will not eliminate the need for adequate ventilation in non-air-conditioned rooms on sun exposures.

Where to Use Essex Glass Blocks

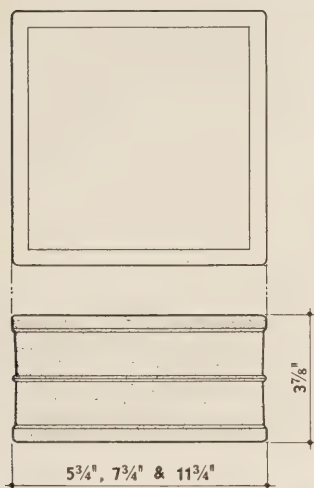
Generally — wherever it is desirable to take advantage of the insulation of light-transmitting areas through the use of glass blocks, and at the same time obtain a relatively low amount of incident light, evenly dispersed to provide for best lighting conditions. The following may serve as a guide to the use of these blocks:

1. In large areas on unshaded East, South, and West exposures where low light transmission and reduced solar heat gain are desired, and conditions are not suitable for use of Prism Light-Directing Blocks
2. Below eye-level, in combination with Prism Light-Directing Blocks on sun exposures.

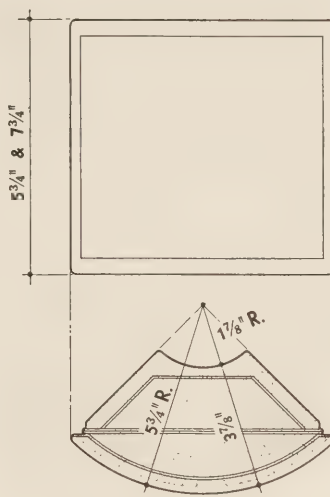
PC Glass Blocks — A MODULAR PRODUCT*

SIZES AND SHAPES AVAILABLE

SQUARE BLOCKS



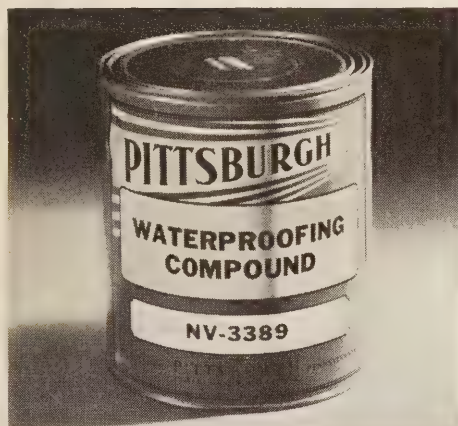
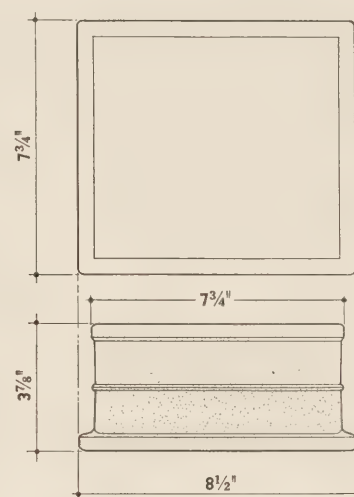
CORNER BLOCKS



NO SCALE

*PC Glass Blocks have Standard Coordinated Dimensions, and meet the requirements of American Standards Association Project A62, and conform to the American Standard Basis for Coordination A62.1-1945.

RADIAL BLOCKS



PITTSBURGH NV-3389 WATERPROOFING COMPOUND — To be added to the mortar to conform with PC specifications. Use one (1) quart per bag of cement.

Available in one-quart, one-gallon, and five-gallon containers.



These PC accessory materials can be obtained from all suppliers of PC Glass Blocks



PC ASPHALT EMULSION — To be used on all sills to form a waterproof joint. Also used to adhere expansion strips to side and head jambs before installing glass blocks. See specifications for proper application.

For sills and adhering of expansion strips estimate one (1) gallon for approximately 150 lin. ft.

Available in one-quart, one-gallon, and five-gallon containers.

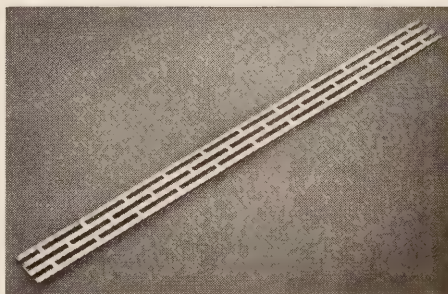


PC EXPANSION STRIPS — To be used in expansion spaces at side and head jambs installed in accordance with PC specifications.

Available in the following sizes:

$\frac{3}{8}$ " x $4\frac{1}{8}$ " x 25" } (For use in chase construction)
 $\frac{3}{8}$ " x $4\frac{1}{8}$ " x 25"

For wall anchor construction, standard $4\frac{1}{8}$ " wide strips can easily be cut to 3" width required.



PC WALL ANCHORS — To be used for supporting panels up to 100 sq. ft. in area where permitted by building code requirements. Spaced and installed in accordance with PC specifications. Wall Anchors are No. 20 gauge perforated steel galvanized after fabrication.

Available in 2'-0" lengths, $1\frac{3}{4}$ " wide.



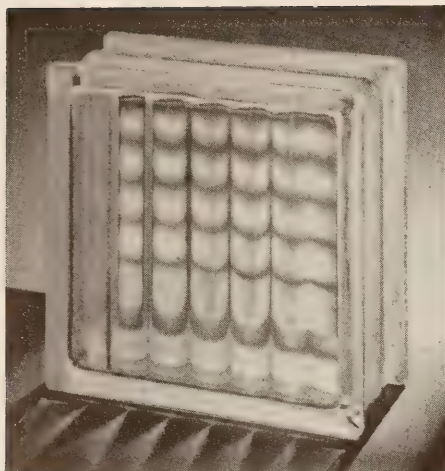
PC WALL TIES — To be used in horizontal joints of glass block panels, spaced and installed in accordance with PC specifications. Wall Ties are formed of two No. 9 galvanized wires spaced 2" apart with No. 14 galvanized cross wires welded every 8".

Available in 8' lengths.

PC Glass Blocks

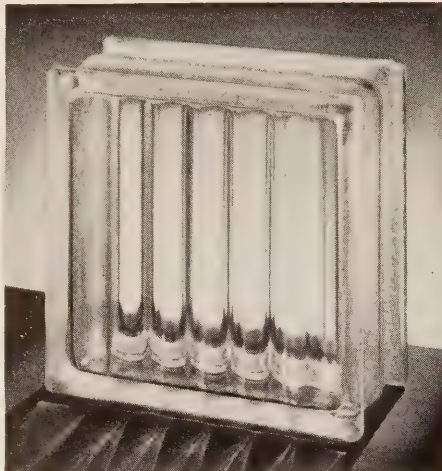
AVAILABLE IN

For light distribution data for all blocks, see page 21



ARGUS

1. A conventional pattern designed for general use, both decorative and utilitarian.
2. High light transmission, good light diffusion.
3. Can be laid with flutes vertical or horizontal on room side with equally pleasing and efficient results. Caution: When used in combination with corner or radial blocks, if pattern match is desired, the standard blocks must be laid with flutes horizontal on room side.
4. Smooth outside faces permit maximum cleanability.
5. Pattern description: Smooth outside faces, interior flutes identical, assembled at right angles.



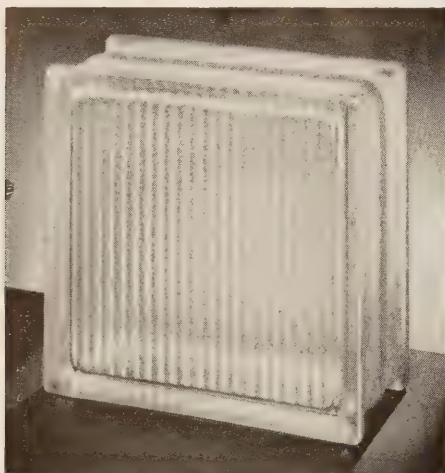
ARGUS PARALLEL FLUTES

1. A conventional pattern designed for general use, both decorative and utilitarian.
2. High light transmission, good light diffusion.
3. Can be laid with flutes vertical or horizontal with equally pleasing and efficient results. Caution: When used in combination with corner or radial blocks, pattern match can be obtained on only one side of panel.
4. Smooth outside faces permit maximum cleanability.
5. Pattern description: Smooth outside faces, interior flutes identical and parallel.



DECORA

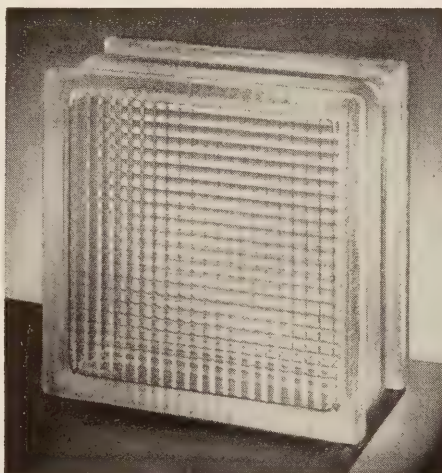
1. A decorative pattern ideally suited to harmonize with both modern and conventional design.
2. High light transmission with irregular diffusion and high translucency.
3. Asymmetric design permits laying without regard to pattern.
4. Smooth outside faces insure maximum cleanability.
5. Pattern description: Smooth outside faces, asymmetric design on both interior faces.



BRISTOL

1. Designed to provide softer, more diffused light.
2. Should be laid with exterior flutes vertical.
3. Cleanability maintained by the smooth exterior flutes and lightly etched border.
4. Pattern description: Narrow vertical flutes and lightly etched border on both outside faces, and flat etched inside faces.

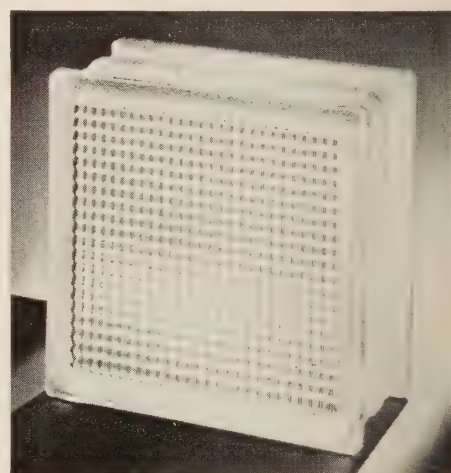
NOTE: This block is supplied in the 7 3/4" sizes only. Also, available with a fibrous glass screen insert (BRISTOL LX-75).



DRUID

1. Designed to provide high light transmission and closely match the Prism Light-Directing unit. For use on elevations without sun exposure when Prism Light-Directing units are used on adjacent sun exposure elevations.
2. Must be laid with exterior flutes vertical.
3. Cleanability is maintained by the smooth exterior flutes and lightly etched border.
4. Pattern description: Narrow vertical flutes and lightly etched border on both outside faces, horizontal flutes on both inside faces. Closely matches appearance of Prism Light-Directing unit.

NOTE: This block is supplied in the 7 3/4" sizes only. Also, available with a fibrous glass screen insert (DRUID LX-75).

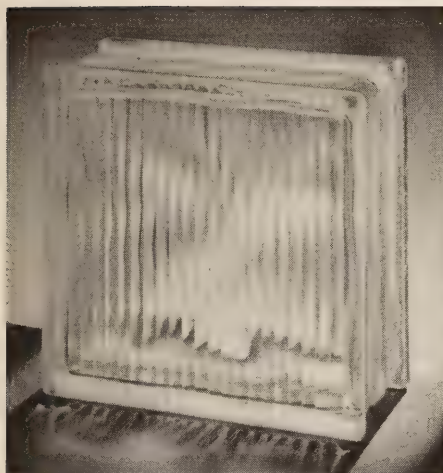


ESSEX

1. Specially designed for low light transmission. For use below eye-level in panels containing Prism Light-Directing Blocks and on elevations subjected to severe exposure to direct sunlight where Prism Light-Directing Blocks are not adaptable.
2. Must be laid with exterior flutes horizontal.
3. Pattern description: Horizontal spreading flutes and lightly etched borders on both exterior faces, vertical Prisms on both interior faces.

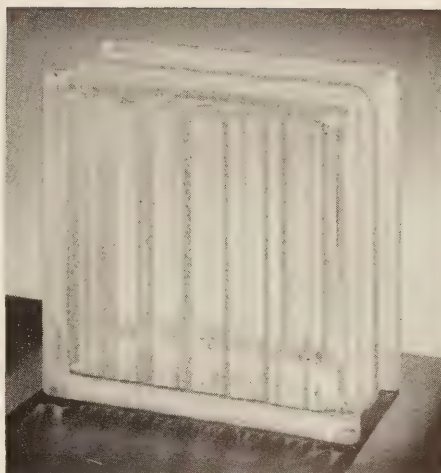
NOTE: This block is supplied in the 7 3/4" sizes only.

A WIDE SELECTION OF SIZES AND PATTERNS



REEDED-DECORA

1. A modified Decora design to increase irregular pattern effects.
2. High light transmission with good diffusion and superior obscurity.
3. Should be laid with exterior reeds vertical.
4. Cleanability is maintained by the smoothly rounded exterior reeds.
5. Pattern description: Narrow parallel reeds on both exterior faces, asymmetric design on both interior faces.



SAXON

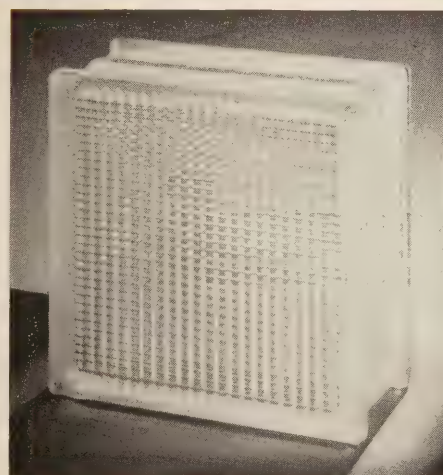
1. A pleasing uniform pattern designed for even light diffusion and brightness reduction, but with good light transmission.
2. Interior etched surfaces with exterior reeds produce maximum obscurity.
3. Should be laid with exterior reeds vertical.
4. Cleanability is maintained by the smoothly rounded exterior reeds.
5. Pattern description: Narrow parallel reeds on both exterior faces, parallel to wide flutes on both interior faces. Both interior faces are etched.



VUE

1. A pattern employing clear glass surfaces to permit sufficient general vision of large objects or movements beyond the panel to prevent the "shut-in" feeling. However, visibility of sharp details is not possible under most conditions.
2. High light transmission.
3. Cleanability is assured by smooth exterior surfaces.
4. Pattern description: Clear, smooth interior and exterior surfaces.

NOTE: This block is supplied in the 7 3/4" sizes only.



PRISM LIGHT-DIRECTING

1. Specially designed to control the direction of sunlight transmitted by the block, and under proper conditions, to provide improved natural illumination.
2. By means of unlike prisms on the two inside faces, the greater part of the transmitted light is directed upward — away from the direct vision or glare zone — to the ceiling where it may be reflected downward to provide indirect "daylighting."

3. Can be set in one position only — block is marked to indicate correct setting. Must not be used below eye level. For lower portions of panels below eye level use Essex Blocks.
4. Smooth vertical exterior flutes and lightly etched border insure easy cleaning.
5. Pattern description: Narrow vertical flutes and etched border on both outside faces, horizontal prisms on both inside faces.

NOTE: This block is supplied in 7 3/4" size only.

(Subject to change without notice)

PATTERNS	SIZES AND SHAPES AVAILABLE					
	5 3/4" Square	7 3/4" Square	11 3/4" Square	5 3/4" Corner	7 3/4" Corner	7 3/4" Radial
Argus	•	•	•	•	•	•
Argus Parallel Flutes	•	•	•			
Bristol *		•			•	•
Decora	•	•	•	•	•	•
Druid *		•			•	•
Essex		•			•	•
Prism Light-Directing		•				
Reeded-Decora	•	•	•	•	•	•
Saxon	•	•	•	•	•	•
Vue		•				•

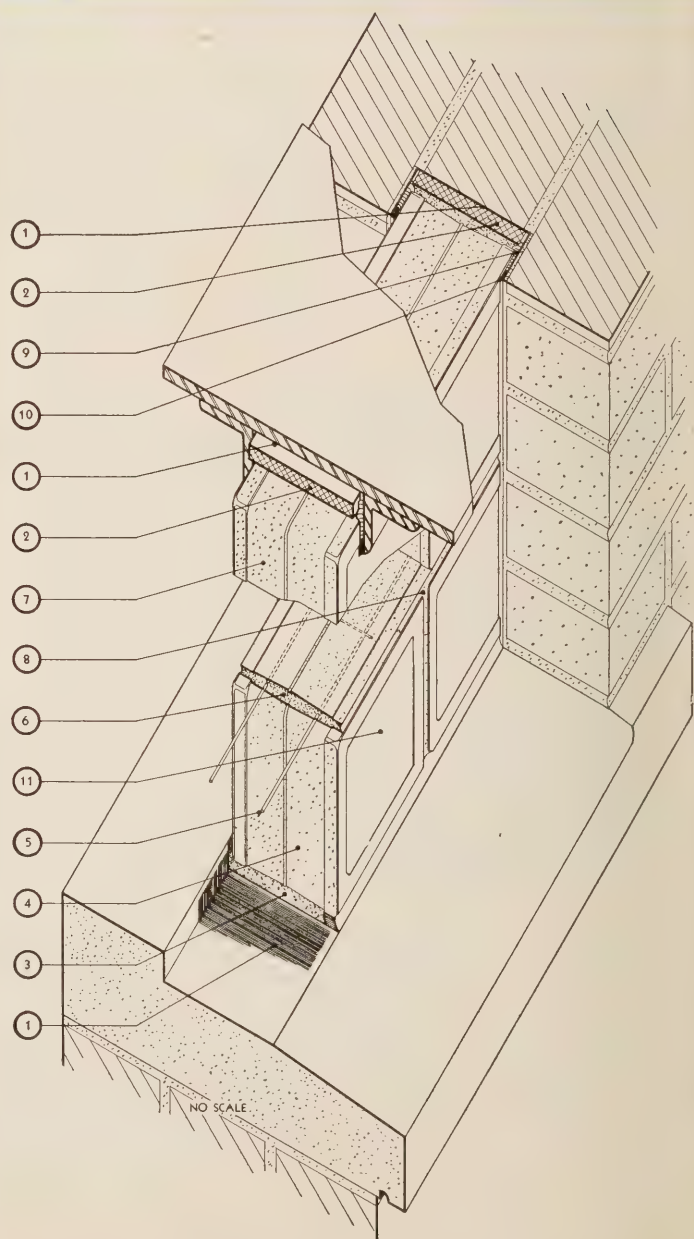
*Also, available with a fibrous glass screen insert (LX-75 pattern).

HOW TO

INSTALL PC GLASS BLOCKS



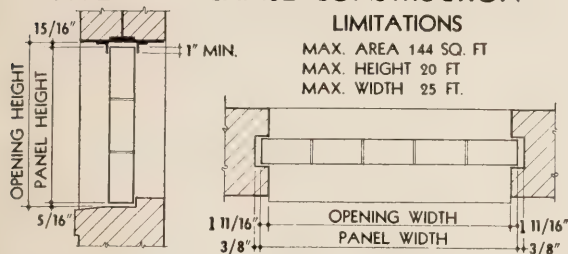
1. Mop entire perimeter of opening with heavy coat of asphalt emulsion.
2. Adhere PC Expansion Strip to jambs and head. Make certain expansion strip extends to sill.
3. Place full mortar bed at sill — do not furrow.
4. Set lower course of block. All vertical and horizontal mortar joints must be full and not furrowed. Steel tools must not be used to tap blocks into final position.
5. Install PC Wall Ties in horizontal joints where required as follows:
 - (a) Place lower half of mortar bed. Do not furrow.
 - (b) Place wall tie centered in joint.
 - (c) Cover wall tie with upper half of mortar bed and trowel smooth. Do not furrow.
 - (d) Wall ties must run from end to end of panels and where used continuously must lap 6".
Wall ties must not bridge expansion joints.
6. Place full mortar bed for joints not requiring wall ties — do not furrow.
7. Follow instructions 3, 4 and 6 for setting succeeding courses of blocks.
8. Strike joints smoothly while mortar is still plastic and before final set. At this time rake out all joints requiring calking to a depth equal to the thickness of joint. Remove surplus mortar from faces of glass blocks and wipe dry.
9. After final mortar set, pack oakum (as specified) tightly into jamb and head construction.
10. Calk interior and exterior perimeter of panel with calking compound as specified.
11. Final cleaning of glass block faces shall not be done until after final mortar set.



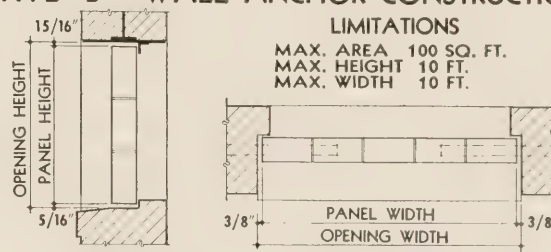
LAYOUT TABLES FOR PC GLASS BLOCK PANELS BASED ON MODULAR COORDINATION

(USING 3/8" MORTAR JOINTS IN FACE BRICK)

TYPE "A"—CHASE CONSTRUCTION



TYPE "B"—WALL ANCHOR CONSTRUCTION



5 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS

7 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS

11 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS

NO OF UNITS	PANEL WIDTH OR HEIGHT	TYPE "A"		TYPE "B"	
		MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT
1	5 3/4"	2 3/8"	7"	6 1/2"	7"
2	11 3/4"	8 3/8"	1'-1"	1'-0 1/2"	1'-1"
3	1'-5 3/4"	1'-2 3/8"	1'-7"	1'-6 1/2"	1'-7"
4	1'-11 3/4"	1'-8 3/8"	2'-1"	2'-0 1/2"	2'-1"
5	2'-5 3/4"	2'-2 3/8"	2'-7"	2'-6 1/2"	2'-7"
6	2'-11 3/4"	2'-8 3/8"	3'-1"	3'-0 1/2"	3'-1"
7	3'-5 3/4"	3'-2 3/8"	3'-7"	3'-6 1/2"	3'-7"
8	3'-11 3/4"	3'-8 3/8"	4'-1"	4'-0 1/2"	4'-1"
9	4'-5 3/4"	4'-2 3/8"	4'-7"	4'-6 1/2"	4'-7"
10	4'-11 3/4"	4'-8 3/8"	5'-1"	5'-0 1/2"	5'-1"
11	5'-5 3/4"	5'-2 3/8"	5'-7"	5'-6 1/2"	5'-7"
12	5'-11 3/4"	5'-8 3/8"	6'-1"	6'-0 1/2"	6'-1"
13	6'-5 3/4"	6'-2 3/8"	6'-7"	6'-6 1/2"	6'-7"
14	6'-11 3/4"	6'-8 3/8"	7'-1"	7'-0 1/2"	7'-1"
15	7'-5 3/4"	7'-2 3/8"	7'-7"	7'-6 1/2"	7'-7"
16	7'-11 3/4"	7'-8 3/8"	8'-1"	8'-0 1/2"	8'-1"
17	8'-5 3/4"	8'-2 3/8"	8'-7"	8'-6 1/2"	8'-7"
18	8'-11 3/4"	8'-8 3/8"	9'-1"	9'-0 1/2"	9'-1"
19	9'-5 3/4"	9'-2 3/8"	9'-7"	9'-6 1/2"	9'-7"
20	9'-11 3/4"	9'-8 3/8"	10'-1"	10'-0 1/2"	10'-1"
21	10'-5 3/4"	10'-2 3/8"	10'-7"		
22	10'-11 3/4"	10'-8 3/8"	11'-1"		
23	11'-5 3/4"	11'-2 3/8"	11'-7"		
24	11'-11 3/4"	11'-8 3/8"	12'-1"		
25	12'-5 3/4"	12'-2 3/8"	12'-7"		
26	12'-11 3/4"	12'-8 3/8"	13'-1"		
27	13'-5 3/4"	13'-2 3/8"	13'-7"		
28	13'-11 3/4"	13'-8 3/8"	14'-1"		
29	14'-5 3/4"	14'-2 3/8"	14'-7"		
30	14'-11 3/4"	14'-8 3/8"	15'-1"		
31	15'-5 3/4"	15'-2 3/8"	15'-7"		
32	15'-11 3/4"	15'-8 3/8"	16'-1"		
33	16'-5 3/4"	16'-2 3/8"	16'-7"		
34	16'-11 3/4"	16'-8 3/8"	17'-1"		
35	17'-5 3/4"	17'-2 3/8"	17'-7"		
36	17'-11 3/4"	17'-8 3/8"	18'-1"		
37	18'-5 3/4"	18'-2 3/8"	18'-7"		
38	18'-11 3/4"	18'-8 3/8"	19'-1"		
39	19'-5 3/4"	19'-2 3/8"	19'-7"		
40	19'-11 3/4"	19'-8 3/8"	20'-1"		
41	20'-5 3/4"	20'-2 3/8"			
42	20'-11 3/4"	20'-8 3/8"			
43	21'-5 3/4"	21'-2 3/8"			
44	21'-11 3/4"	21'-8 3/8"			
45	22'-5 3/4"	22'-2 3/8"			
46	22'-11 3/4"	22'-8 3/8"			
47	23'-5 3/4"	23'-2 3/8"			
48	23'-11 3/4"	23'-8 3/8"			
49	24'-5 3/4"	24'-2 3/8"			
50	24'-11 3/4"	24'-8 3/8"			

NO. OF UNITS	PANEL WIDTH OR HEIGHT	TYPE "A"		TYPE "B"	
		MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT
1	7 3/4"	4 3/8"	9"	8 1/2"	9"
2	1'-3 3/4"	1'-0 3/8"	1'-5"	1'-4 1/2"	1'-5"
3	1'-11 3/4"	1'-8 3/8"	2'-1"	2'-0 1/2"	2'-1"
4	2'-7 3/4"	2'-4 3/8"	2'-9"	2'-8 1/2"	2'-9"
5	3'-3 3/4"	3'-0 3/8"	3'-5"	3'-4 1/2"	3'-5"
6	3'-11 3/4"	3'-8 3/8"	4'-1"	4'-0 1/2"	4'-1"
7	4'-7 3/4"	4'-4 3/8"	4'-9"	4'-8 1/2"	4'-9"
8	5'-3 3/4"	5'-0 3/8"	5'-5"	5'-4 1/2"	5'-5"
9	5'-11 3/4"	5'-8 3/8"	6'-1"	6'-0 1/2"	6'-1"
10	6'-7 3/4"	6'-4 3/8"	6'-9"	6'-8 1/2"	6'-9"
11	7'-3 3/4"	7'-0 3/8"	7'-5"	7'-4 1/2"	7'-5"
12	7'-11 3/4"	7'-8 3/8"	8'-1"	8'-0 1/2"	8'-1"
13	8'-7 3/4"	8'-4 3/8"	8'-9"	8'-8 1/2"	8'-9"
14	9'-3 3/4"	9'-0 3/8"	9'-5"	9'-4 1/2"	9'-5"
15	9'-11 3/4"	9'-8 3/8"	10'-1"	10'-0 1/2"	10'-1"
16	10'-7 3/4"	10'-4 3/8"	10'-9"		
17	11'-3 3/4"	11'-0 3/8"	11'-5"		
18	11'-11 3/4"	11'-8 3/8"	12'-1"		
19	12'-7 3/4"	12'-4 3/8"	12'-9"		
20	13'-3 3/4"	13'-0 3/8"	13'-5"		
21	13'-11 3/4"	13'-8 3/8"	14'-1"		
22	14'-7 3/4"	14'-4 3/8"	14'-9"		
23	15'-3 3/4"	15'-0 3/8"	15'-5"		
24	15'-11 3/4"	15'-8 3/8"	16'-1"		
25	16'-7 3/4"	16'-4 3/8"	16'-9"		
26	17'-3 3/4"	17'-0 3/8"	17'-5"		
27	17'-11 3/4"	17'-8 3/8"	18'-1"		
28	18'-7 3/4"	18'-4 3/8"	18'-9"		
29	19'-3 3/4"	19'-0 3/8"	19'-5"		
30	19'-11 3/4"	19'-8 3/8"	20'-1"		
31	20'-7 3/4"	20'-4 3/8"			
32	21'-3 3/4"	21'-0 3/8"			
33	21'-11 3/4"	21'-8 3/8"			
34	22'-7 3/4"	22'-4 3/8"			
35	23'-3 3/4"	23'-0 3/8"			
36	23'-11 3/4"	23'-8 3/8"			
37	24'-7 3/4"	24'-4 3/8"			
38	25'-3 3/4"	25'-0 3/8"			

MODULAR COORDINATION

The American Standard Basis for the Coordination of Dimensions of Building Materials and Equipment A62.1-1945 established a standard grid based on a Module of 4". Most producers of masonry products, glass blocks, windows and other building materials have adopted Modular Coordinated Sizes. Modular Installation Details on the following pages show combinations of these materials incorporating basic principles for installing glass blocks. For additional details refer to the "A62 Guide for Modular Coordination" published by Modular Service Association, 110 Arlington Street, Boston 16, Massachusetts.

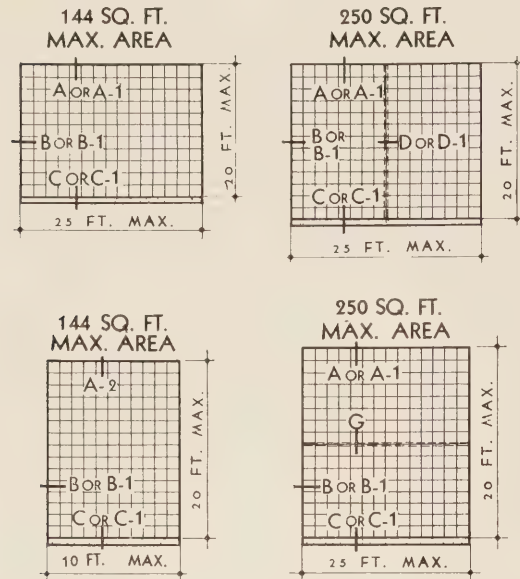
Exterior Panel Size Limitations with minimum expansion and anchorage requirements

GENERAL: Construction supporting panels over 144 square feet in area must be of a type which will provide for a minimum of movement and settlement.

Structural members shown are to indicate principles of construction. Sizes must be calculated for loads applied. Information shown on these sheets is not intended to conflict with any local building code requirements.

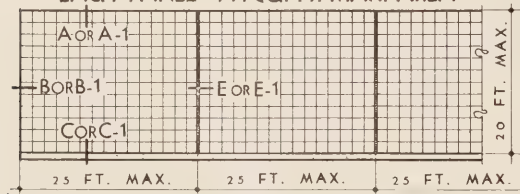
PC GLASS

LARGE SIMPLE PANELS

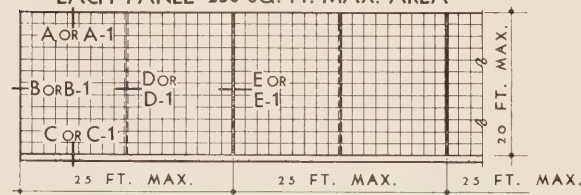


LARGE CONTINUOUS PANELS

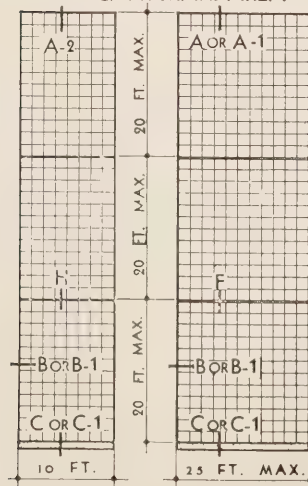
EACH PANEL 144 SQ. FT. MAX. AREA



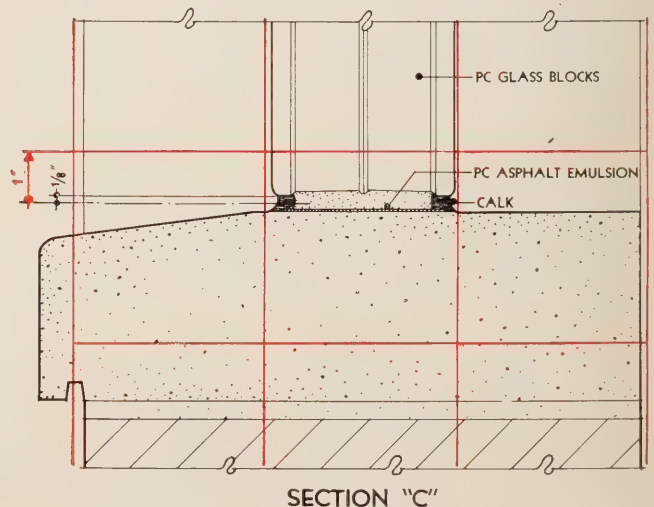
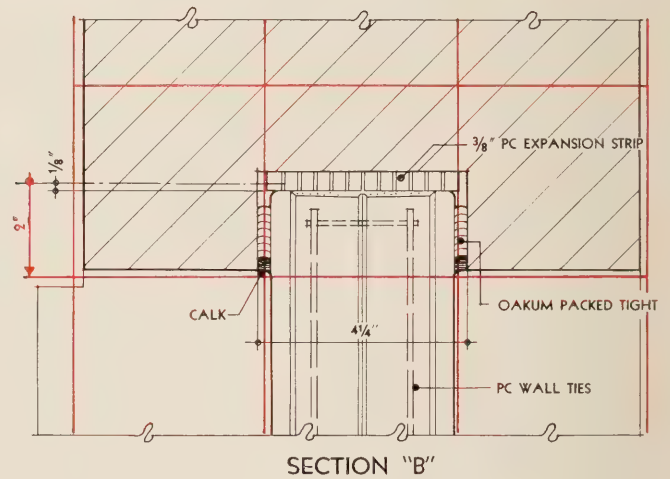
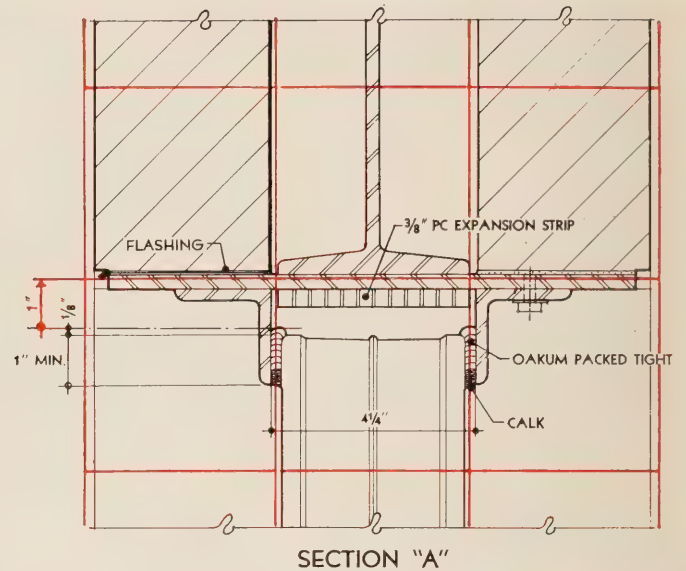
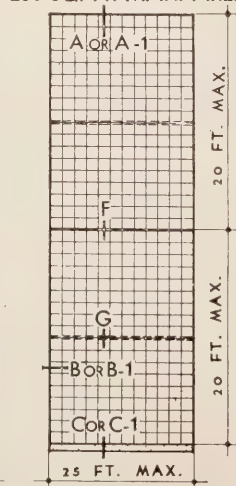
EACH PANEL 250 SQ. FT. MAX. AREA



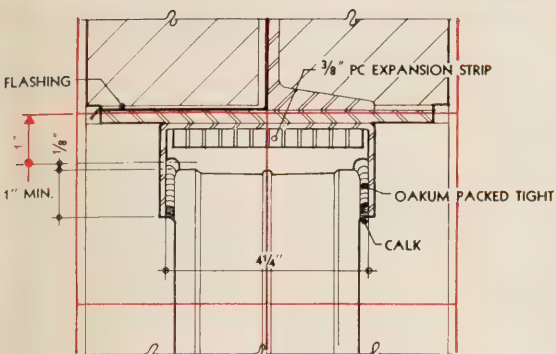
EACH PANEL 144 SQ. FT. MAX. AREA



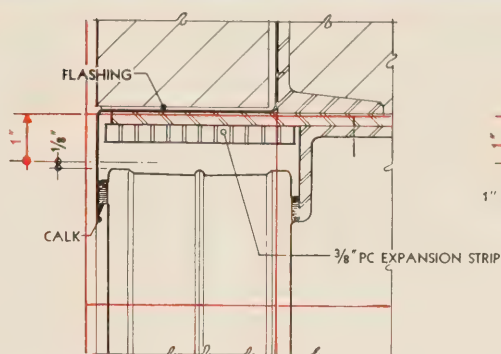
EACH PANEL 250 SQ. FT. MAX. AREA



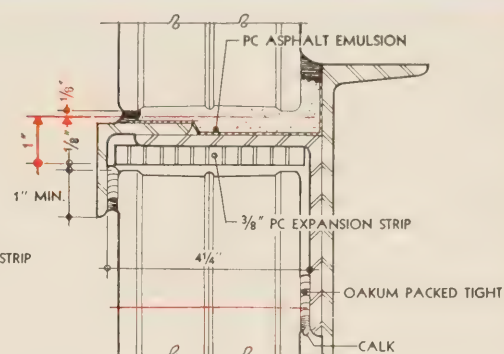
BLOCKS—MODULAR INSTALLATION DETAILS



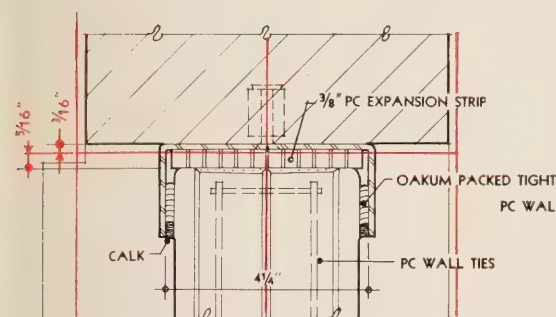
SECTION "A-1"



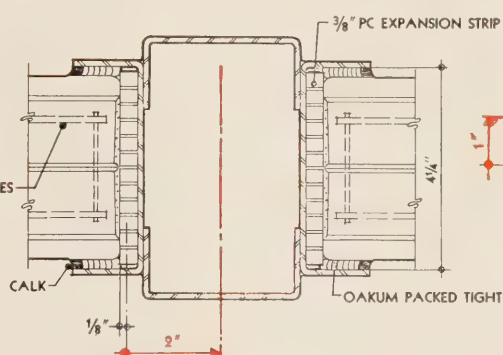
SECTION "A-2"



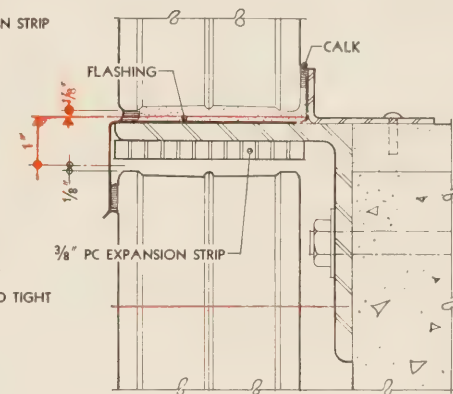
SECTION "F"



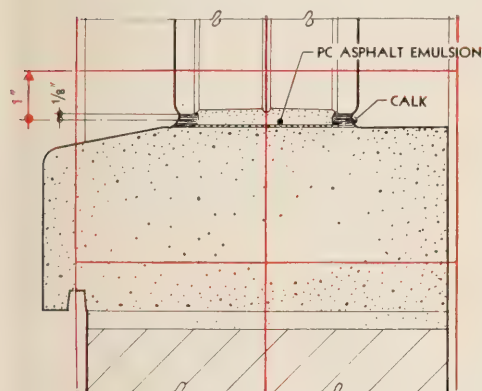
SECTION "B-1"



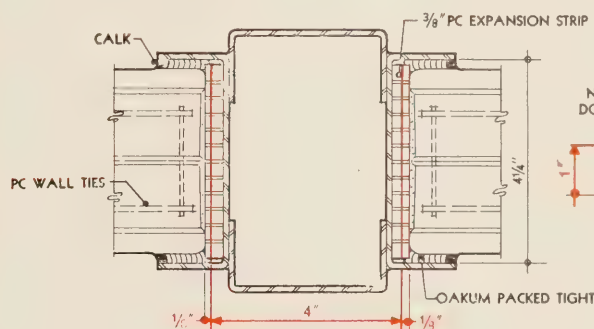
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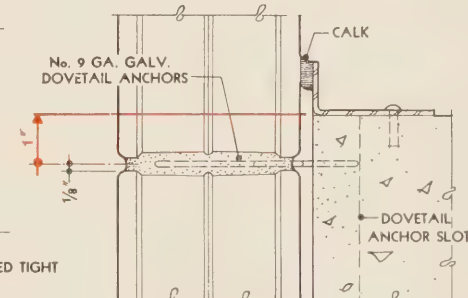
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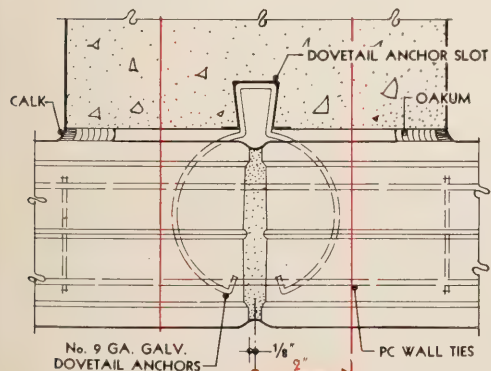
SECTION "C-1"



SECTION "E-1"



SECTION "G"



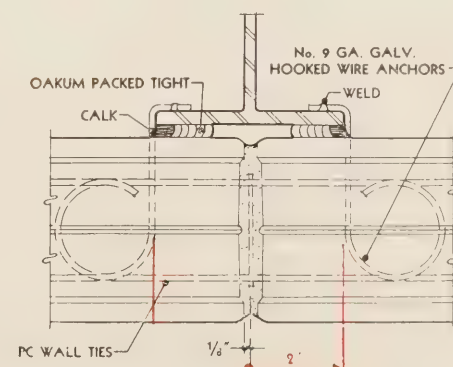
SECTION "D"

GENERAL NOTES

All red lines shown are Grid Lines.

When Section "B-1" is used vertical mortar joints of panel must be compressed slightly to obtain sufficient space at jambs for expansion strips.

GRID POSITION: Installation details for glass block panels establish the grid position of individual units vertically and horizontally. The vertical joints may be either on grid lines or centered between grid lines, depending upon the details used at the panel jambs. The centerlines of horizontal joints may either be on grid lines or some small dimension, normally 1", below or above grid lines. Glass block panels are normally positioned with the nominal faces on grid lines, so as to fit with chases or recesses in masonry openings. Other grid positions for the exposed faces may be used where required, examples of which are shown. Those details which do not indicate panel position with reference to grid lines, can be used for several conditions.



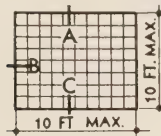
SECTION "D-1"

Wall anchors providing lateral support for glass block panels are restricted only by building code requirements and the discretion of the architect. Where wall anchors are forbidden, chase construction shall be used.

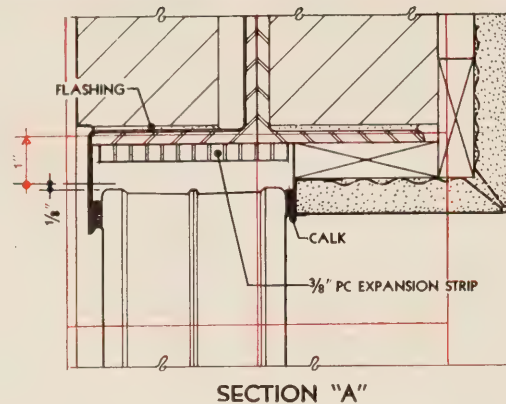
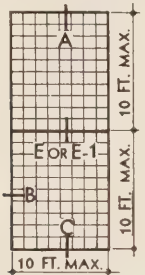
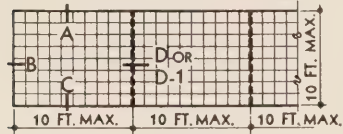
MODULAR INSTALLATION DETAILS— FOR SMALL EXTERIOR PANELS

SMALL EXTERIOR PANELS 100 SQ. FT. MAX. AREA

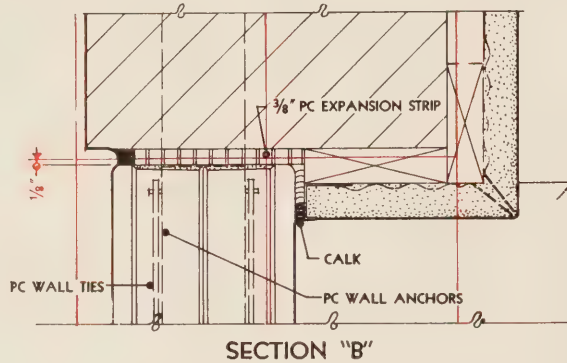
SIMPLE PANELS



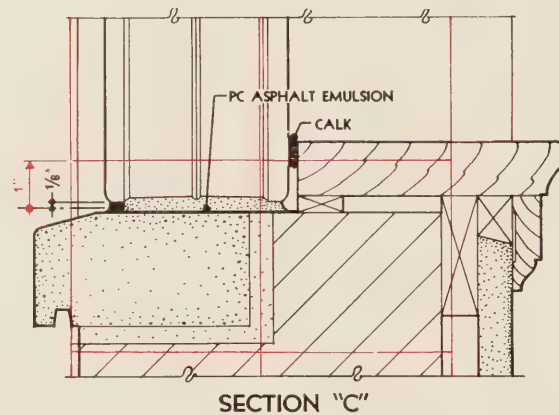
CONTINUOUS PANELS



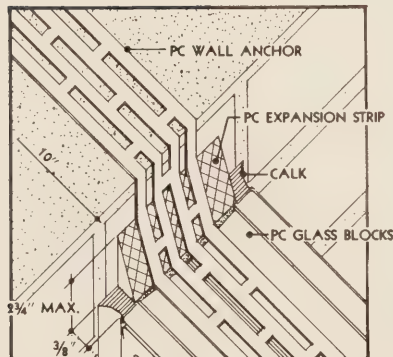
SECTION "A"



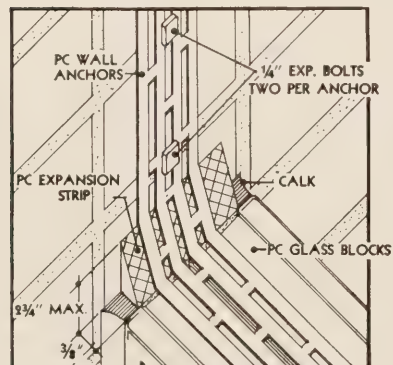
SECTION "B"



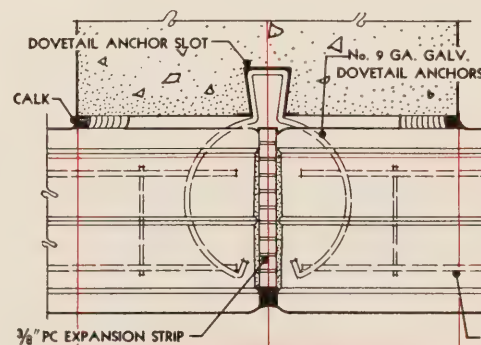
SECTION "C"



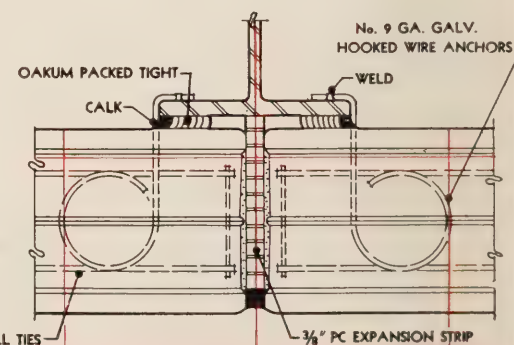
PC WALL ANCHORS
IN NEW CONSTRUCTION



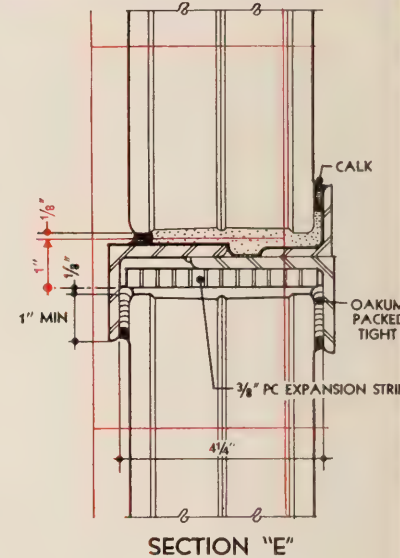
PC WALL ANCHORS IN
EXISTING CONSTRUCTION



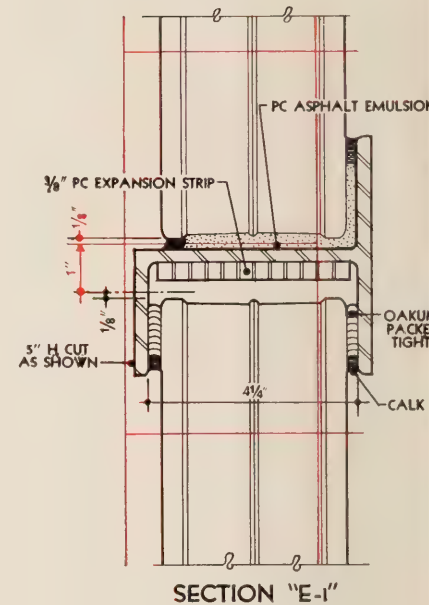
SECTION "D"



SECTION "D-1"



SECTION "E"

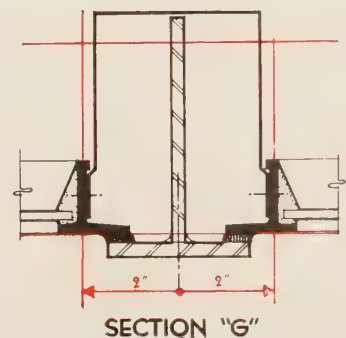
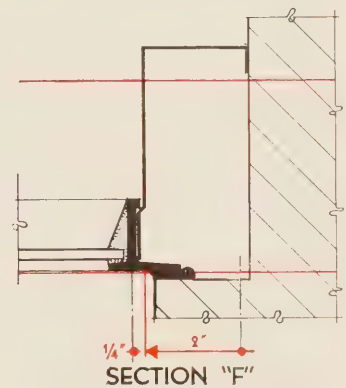
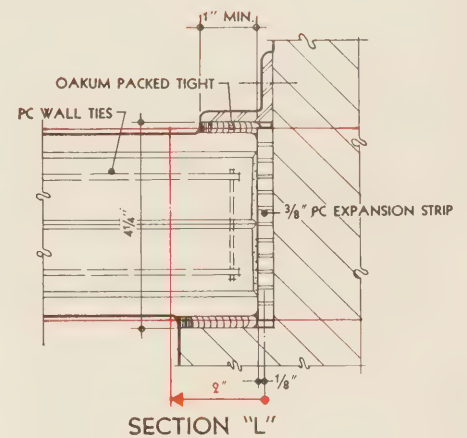
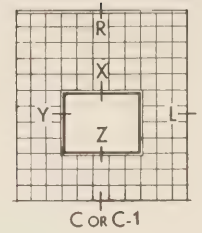
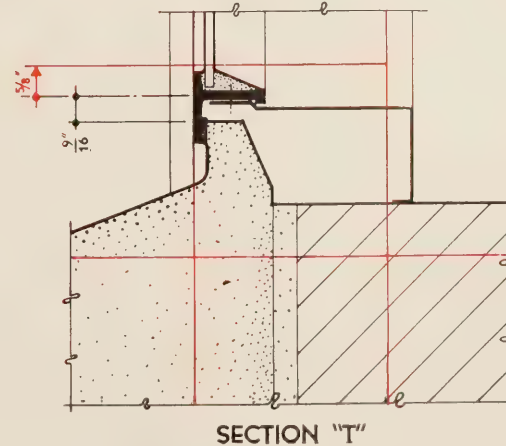
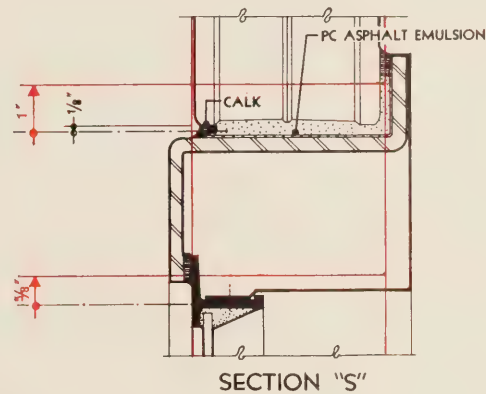
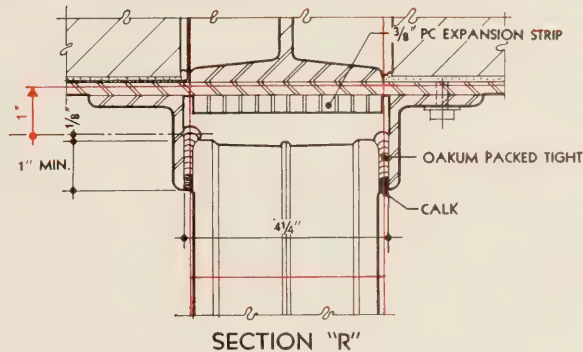
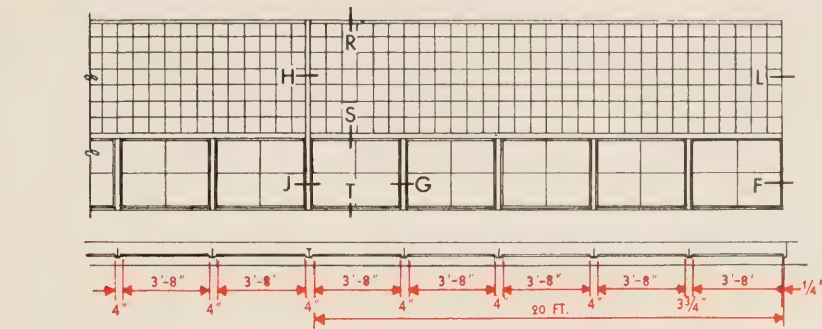
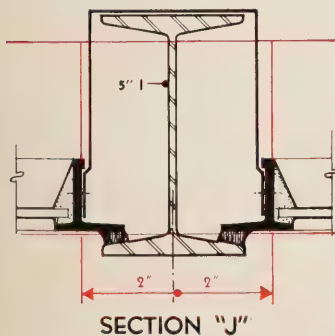
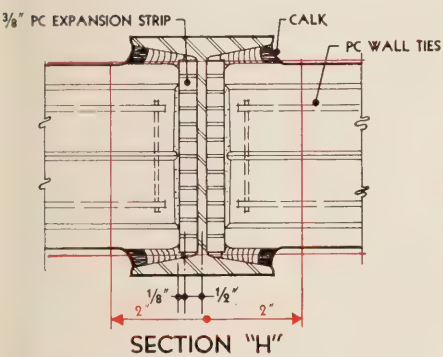
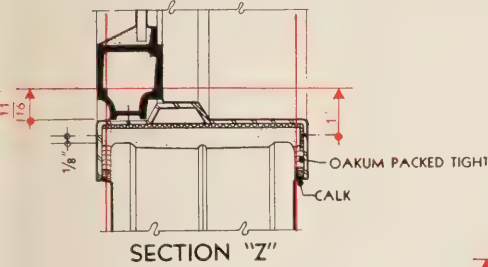
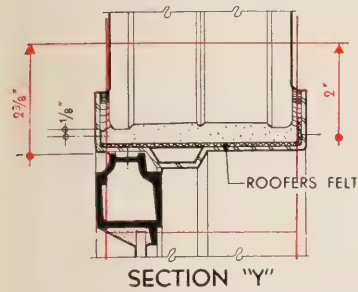
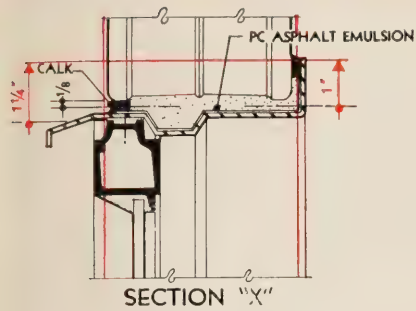


SECTION "E-1"

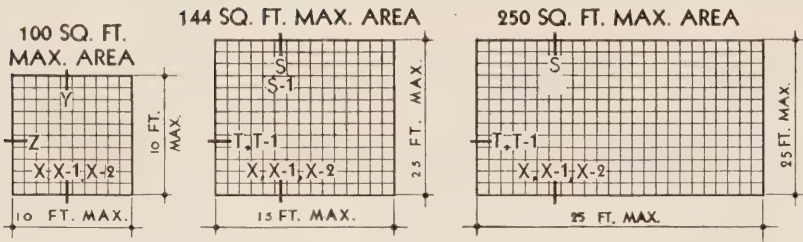
Where Sections "D" and "D-1" are used, vertical mortar joints of panels must be compressed slightly to obtain space for expansion strips.

MODULAR INSTALLATION DETAILS — FOR SASH AND GLASS BLOCK COMBINATIONS

Many metal sash manufacturers offer Modular standard sash and frames for combining with Glass Block.



MODULAR INSTALLATION DETAILS— FOR INTERIOR PANELS

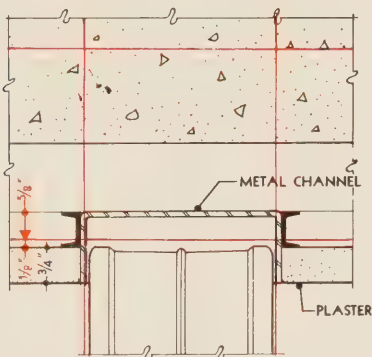


INTERIOR PANEL SIZE LIMITATIONS WITH
MINIMUM EXPANSION & ANCHORAGE REQUIREMENTS

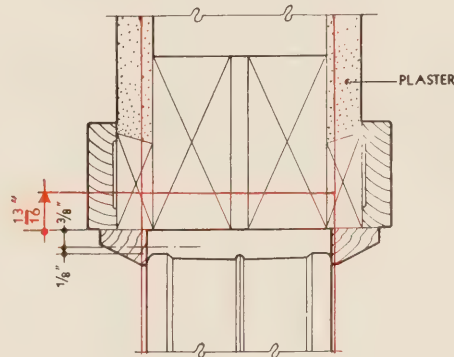
Construction supporting panels over 144 square feet in area must be of a type which will provide for a minimum of movement and settlement.

Information shown on this sheet is not intended to conflict with any local building code requirements.

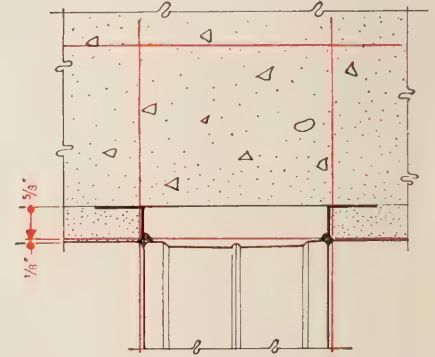
Before glass blocks are installed in wood partitions, all wood adjacent to mortar shall be properly primed.



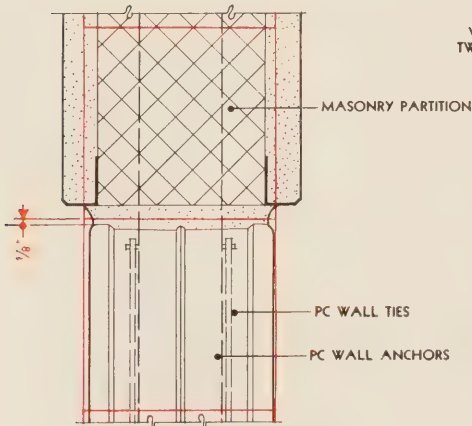
SECTION "S"



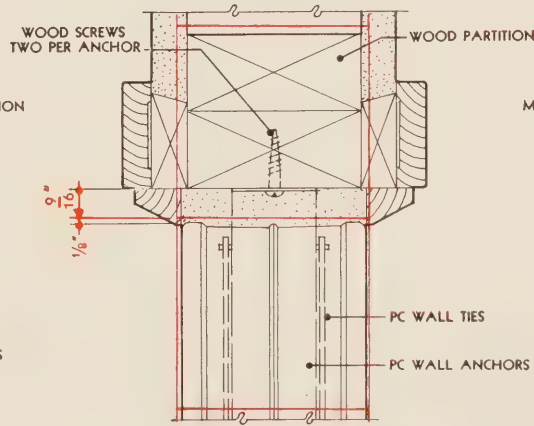
SECTION "S-1"



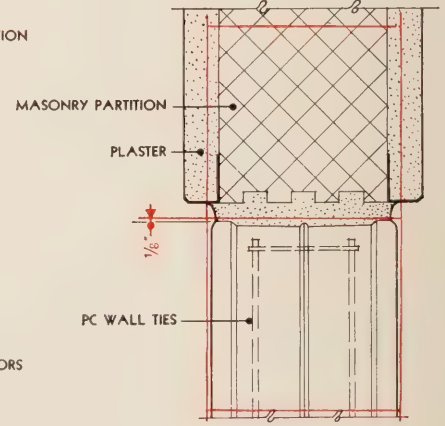
SECTION "Y"



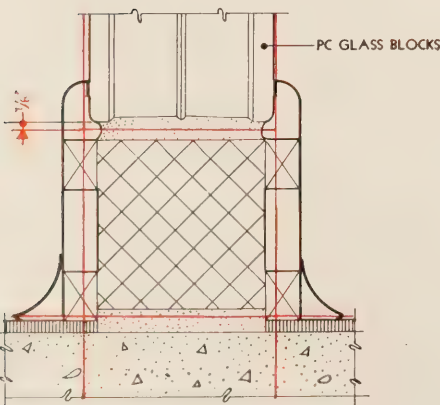
SECTION "T"



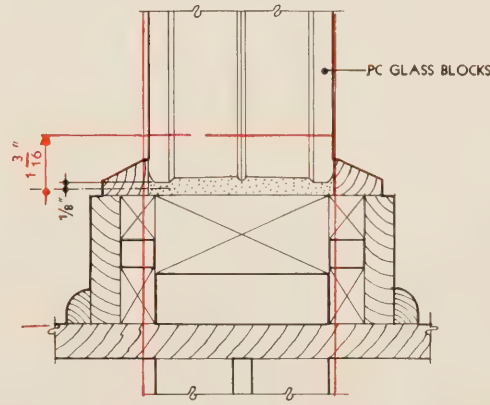
SECTION "T-1"



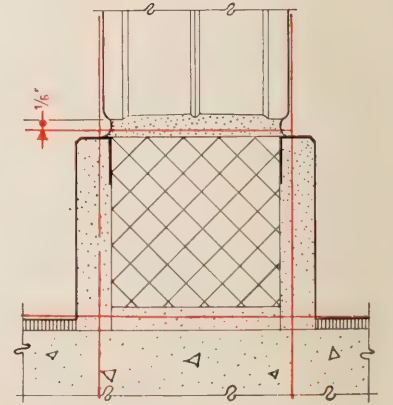
SECTION "Z"



SECTION "X"

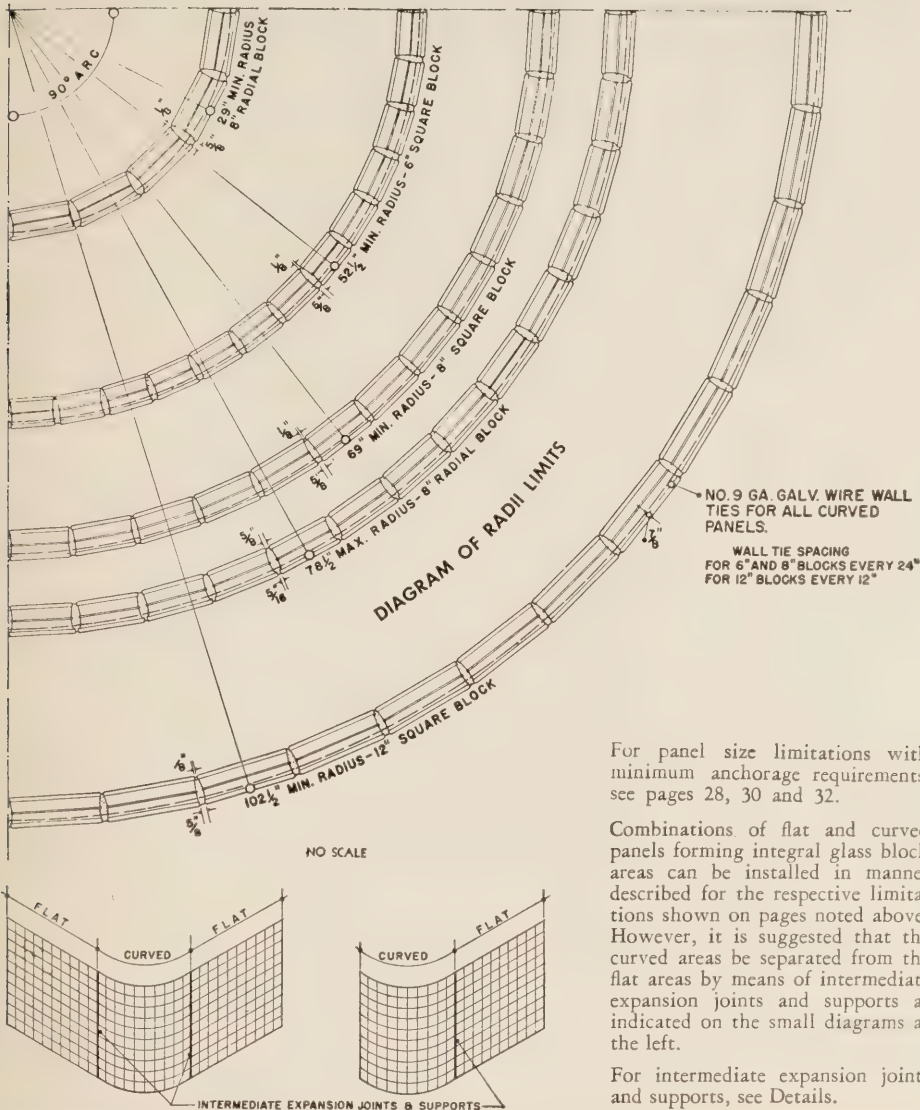


SECTION "X-1"



SECTION "X-2"

CURVED PANEL INSTALLATION REQUIREMENTS WITH TABLE OF RADII LIMITS



For panel size limitations with minimum anchorage requirements, see pages 28, 30 and 32.

Combinations of flat and curved panels forming integral glass block areas can be installed in manner described for the respective limitations shown on pages noted above. However, it is suggested that the curved areas be separated from the flat areas by means of intermediate expansion joints and supports as indicated on the small diagrams at the left.

For intermediate expansion joints and supports, see Details.

TABLE OF RADII LIMITS FOR CURVED PANELS

Outside Radius Inches	Number of Block in 90° Circular Arc	Joint Thickness in Inches		Re-marks
		Inside	Outside	
6" SQUARE BLOCK				
52 1/2	13	1/8	5/8	Minimum
56 1/4	14	1/8	5/8	
56 3/4	14	3/8	5/8	
60	15	1/8	5/8	
61	15	3/8	5/8	
63 3/4	16	1/8	1 1/2	
65	16	1/4	5/8	
67 1/2	17	1/8	1 1/2	
69	17	1/4	5/8	
71 1/4	18	1/8	7/8	
73	18	3/8	5/8	

No Maximum Limitations.

8" SQUARE BLOCK				
69	15	1/8	5/8	Minimum
74	14	1/8	5/8	
74 3/4	14	3/8	5/8	
79	15	1/8	1 1/2	
80	15	1/4	5/8	
84	16	1/8	1 1/2	
85 1/4	16	1/4	5/8	

No Maximum Limitations.

8" RADIAL BLOCK				
29	5	1/8	5/8	Minimum
34	6	1/8	5/8	
34 3/4	6	3/8	5/8	
39	7	1/8	1 1/4	
40 3/4	7	1/2	5/8	
44	8	1/8	1 1/8	
46 1/2	8	5/8	5/8	
49 1/2	9	3/8	1 1/4	
51 3/4	9	5/8	5/8	
55	10	1/4	1 1/8	
57 1/4	10	5/8	1 1/2	Use Square Block for larger radii
60 1/2	11	3/8	1 1/8	
62 1/2	11	5/8	1 1/2	
66	12	3/8	1 3/8	
67 3/4	12	5/8	5/8	
71 1/2	13	3/8	1 1/2	
73 1/4	13	5/8	1 3/8	
76 3/4	14	7/8	1 3/8	
78 1/2	14	5/8	1 3/8	

12" SQUARE BLOCK				
102 1/2	13	1/8	5/8	Minimum

No Maximum Limitations.

NOTE: Radii given to closest quarter inch; joint thicknesses to closest sixteenth inch.

Guide No. 40 UM2.6.5. December 11, 1945 File R2556.

Pittsburgh Corning Corp., Mfr.,
632 Duquesne Way, Pittsburgh 22, Pa.

Glass Blocks.

For window openings not exceeding 120 sq ft in area, nor 12 ft in width or height, subject to light fire exposure (Class F openings), Argus, Argus Parallel, Bristol, Druid, Decora, Essex, and Saxon PC hollow glass blocks, nominally 7-3/4 by 7-3/4 by 3-7/8 in., and Argus, Argus Parallel, Decora, and Saxon 5-3/4 by 5-3/4 in. face dimensions, 3-7/8 in. thick; laid with 1/4-in. horizontal and vertical mortar joints; mortar consisting of one part portland cement, one part hydrated lime, and four parts No. 1 screened torpedo sand by volume; each horizontal joint except between the two top rows reinforced for full length with No. 9 and 14 Bwg galvanized wire mesh; the glass block panels extending 1-1/4 in. into grooves 2-1/4 in. deep in jambs and lintel of the masonry openings, with glass or mineral wool in the remaining spaces in the grooves, to provide for expansion of the glass panels; exterior jamb and lintel edges caulked with waterproofing mastic.

Marking: Letters "PC", pattern designation, size and manufacturer's name on container.

Listed—Reexamination Service.

See description of Reexamination Service on guide card.

Authorities having jurisdiction should be consulted before installation.

This card replaces R2556 dated Jan. 2, 1941.

This card is issued by Underwriters' Laboratories, Inc.

PC GLASS BLOCKS

Listed by

Underwriters' Laboratories, Inc.

NOTE: For information regarding details of chase construction required, consult the Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh, Pa., or your nearest branch of the Pittsburgh Plate Glass Company.

PC GLASS BLOCKS APPROVED BY BUILDING CODE AUTHORITIES

Building Code Authorities throughout the country have accepted and approved the use of PC Glass Blocks as a building material of adequate strength for non-load-bearing construction when installed according to the manufacturer's directions.

NOTE: Since publication of this guide card, the 7-3/4 by 7-3/4 in. Prism Light-Directing glass block also has been listed by Underwriters' Laboratories, Inc.

PC Glass Blocks — CLOSED SPECIFICATIONS

GENERAL CONDITIONS: The "General Conditions" of the contract are a part of these specifications.

SCOPE OF THE WORK: This contractor shall furnish all labor and materials to install all glass blocks where shown on the drawings or specified hereinunder. This shall include the furnishing and installation of all expansion joint strips, oakum packing, felts, wall ties, wall anchors, calking, asphalt emulsion, and other labor and materials necessary for a complete installation. This contract does not include the preparation of the structure to receive the glass block panels, such as chases, stiffeners, etc., except as hereinafter specified.

MATERIALS: Glass Blocks . . . shall be hollow, partially evacuated, clear, colorless glass units as manufactured by the Pittsburgh Corning Corporation. Units shall be "all glass," formed of two halves fused together at a high temperature. Edges shall be so formed as to provide a "key-lock" mortar joint. All blocks shall be coated on the edges with a grit-bearing, water-and-alkaline-resistant plastic material.

Patterns — Sizes — Shapes . . . shall be as shown on the drawings or as specified hereinunder:

(Indicate PC patterns, sizes and shapes, and locations)

Expansion Joint Materials . . . where shown or required, shall be PC Expansion Strips as furnished by Pittsburgh Corning Corporation.

Asphalt Emulsion . . . where shown or required, shall be PC Asphalt Emulsion as furnished by Pittsburgh Corning Corporation.

Wall Ties . . . shall be PC Wall Ties of steel double wire mesh formed of two parallel wires (No. 9 gage) 2" on centers with electrically welded cross wires (No. 14 gage) at regular intervals, and shall be galvanized. Wall ties shall be installed in horizontal mortar joints of all glass block panels as follows:

For $5\frac{3}{4}$ " size blocks — Every four courses.

For $7\frac{3}{4}$ " size blocks — Every three courses.

For $11\frac{3}{4}$ " size blocks — Every course.

Wall ties shall run continuously with ends lapped not less than 6 in. and shall run from end to end of panel. Wall ties shall not bridge expansion joints.

Wall Anchors . . . where shown on drawings shall be PC Wall Anchors as furnished by the Pittsburgh Corning Corporation and shall be No. 20 gage perforated steel strips 24 in. long by $1\frac{3}{4}$ in. wide galvanized after perforating. All wall anchors must be crimped within expansion joints, and shall generally be placed 24 in. apart occurring in the same joint as wall ties and must be completely embedded in the mortar joint of the glass block panels.

Mortar . . . shall be one (1) part Portland Cement, one (1) part lime, and four (4) to six (6) parts sand all measured by dry volumes, and *integral type waterproofer*, mixed to a consistency as stiff as will permit good working and shall be drier than for ordinary clay brickwork. For interior panels the waterproofer may be omitted. Admixtures in the form of setting accelerators and anti-freeze compounds shall not be used.

NOTE: At the discretion of the architect or engineer, a mortar prepared from masonry cement of low volume change, incorporating metallic stearate type waterproofer, and mixed in accordance with manufacturer's recommendation may be specified as an alternate.

Cement . . . shall be Type I conforming to the Standard Specifications for Portland Cement (A.S.T.M. Designation: C150-46).

Lime . . . shall be a high-calcium type* hydrated lime or masons' hydrate conforming to the Standard Specifications for Normal Finishing Hydrated Lime (A.S.T.M. Designation C6-46T), or a well-slaked quicklime putty conforming to the Standard Specifications for quicklime for Structural Purposes (A.S.T.M. Designation: C5-26). Hydrated lime shall be soaked at least two (2) hours, and quicklime shall be slaked not less than forty-eight (48) hours and screened prior to use in mortar. Where lime in the form of putty is used, the amount specified shall be interpreted as the actual volume of putty.

*NOTE: Hydrated lime of the magnesia or dolomitic type may be used provided that not less than 92% of all active ingredients are completely hydrated.

Sand . . . shall conform with Standard Specifications for Aggregate for Masonry Mortar, Intermediate Grading (A.S.T.M. C144-44), but shall contain particles of such size that not more than twelve (12) per cent by weight shall pass a No. 100 mesh sieve, and one hundred (100) per cent shall pass through a No. 8 mesh sieve, as defined therein.

Waterproofer . . . shall be Pittsburgh Plate Glass Co. type NV-3389 (metallic stearate type). It shall be added to the mortar at the time of mixing and in the proportion recommended by the manufacturer, except where a water-proof Portland Cement or prepared masonry mortar is used. In the latter cases, no waterproofer shall be added at the time of mixing.

Oakum . . . where indicated on drawings or required for lateral cushioning of glass block panels at jambs and head chases, shall be of non-staining type treated to prevent dry rot, and shall be subject to the approval of the architect or engineer.

Calking . . . mastic calking compounds as approved by the architect shall be applied evenly and to the full depth of recess provided at both interior and exterior perimeters of all glass block panels.

FLASHINGS: Unless otherwise specified, contractor shall furnish and install in locations shown or where required, flashings as are necessary to provide a complete installation.

INSTALLATION: Sills shall be heavily coated with asphalt emulsion which shall be allowed to dry for at least two hours before mortar is placed. Expansion joint strips shall be adhered to the jambs and head with asphalt emulsion, and shall run continuously in the expansion space, and must rest directly on the sill.

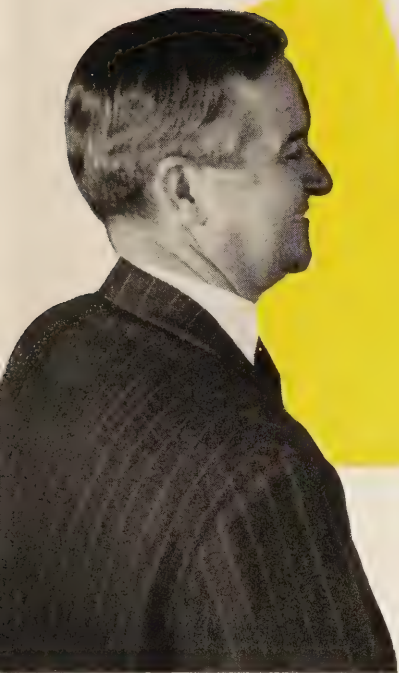
All mortar joints must be completely filled with mortar and *shall not be furrowed*. Mortar must not bridge across expansion joints. Blocks shall be laid up plumb, true to line, and with one-quarter ($\frac{1}{4}$) in.* visible width mortar joints. While mortar is still plastic and before final set, the joints shall be compressed to a depth necessary to expose the corners of the blocks as sharp, clean lines, and joints shall immediately be tooled slightly concave and smooth. The number of courses of glass blocks laid in successive lifts shall be limited to prevent compaction of joints.

*Unless otherwise specified.

CLEANING: While mortar is still plastic and before final set, this contractor shall clean off all mortar and foreign material from the glass block surfaces. Final cleaning shall be done by others, after mortar has reached its final set.

Why it Pays to Specify

PC GLASS BLOCKS



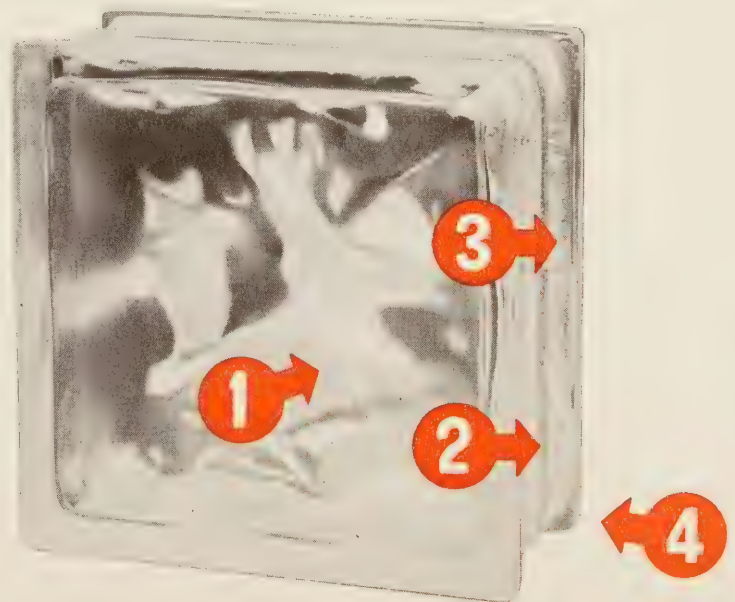
1. PC Glass Blocks are made of clear, colorless glass of proven durability. The light which streams through them is of full daylight tone, requiring no special consideration in the matching of colors, either for decoration or production uniformity.

2. PC Glass Blocks are hollow "all glass" units with fused seals made at high temperatures, relatively free of entrapped water vapor. This feature was developed by our engineers so that PC Glass Blocks will remain tightly sealed. Because of this method of "all glass" construction, the seal has the same coefficient of expansion as the block itself. The joint is as strong as any other part of the block. This tight seal insures a dry, dead-air space within the block which is so important to efficient heat insulation.

3. PC Glass Blocks have all-glass mortar edges with grit-bearing water-and-alkaline-resistant plastic coating. This forms a permanent bond between glass and mortar, which insures a high degree of wind resistance and weather-tightness. As is the case with all masonry, voids in mortar joints are a chief cause of leaky walls. The mason can prevent this trouble by using care in completely filling all mortar joints.

4. PC Glass Block edge construction forms a "key-lock" mortar joint, providing a full bed of mortar, yet permitting a visible joint of only about $\frac{1}{4}$ inch, resulting in a trim panel that is pleasing to the eye. And this "key-lock" joint is easier to handle in laying.

These are all features that assure consumer satisfaction. Better color — neater appearance in panels — greater durability — all are important. All of them guard the investment of the final consumer — and the reputation of those who have recommended and installed the material.



PC Glass Blocks

MANUFACTURED BY:
PITTSBURGH CORNING CORPORATION
632 DUQUESNE WAY • PITTSBURGH 22, PA.
AVAILABLE THROUGH THE FOLLOWING
BRANCHES OF
PITTSBURGH PLATE GLASS COMPANY

AKRON 4, OHIO
ALBANY 1, N. Y.
ALLENTOWN, PA.
AMARILLO, TEXAS
ANN ARBOR, MICH.
ATLANTA 1, GA.
ATLANTIC CITY, N. J.
AUGUSTA, GA.
AURORA, ILL.
AUSTIN, TEXAS
BALTIMORE 1, MD.
BEAUMONT, TEXAS
BIRMINGHAM 1, ALA.
BOSTON 15, MASS.
BRONX 51, N. Y.
BUFFALO 2, N. Y.
BURLINGTON, VT.
BUTTE, MONT.
CHARLESTON, S. C.
CHARLOTTE 1, N. C.
CHICAGO 11, ILL.
CINCINNATI 2, OHIO
CLEVELAND 14, OHIO
COLUMBIA 3, S. C.
COLUMBUS 1, OHIO
CORPUS CHRISTI, TEXAS
DALLAS 2, TEXAS
DANVILLE, ILL.
DAVENPORT, IOWA
DECATUR 21, ILL.
DENVER 1, COLO.
DES MOINES 6, IOWA
DETROIT 2, MICH.
DUBUQUE, IOWA
DULUTH 2, MINN.
DURHAM, N. C.

ELGIN, ILL.
EL PASO, TEXAS
ERIE, PA.
FINDLAY, OHIO
FORT WORTH 1, TEXAS
FOSTORIA, OHIO
GALESBURG, ILL.
GALVESTON, TEXAS
GRAND RAPIDS 2, MICH.
GREENSBORO, N. C.
GREENVILLE, S. C.
HAMILTON, OHIO
HAMMOND, IND.
HARRISBURG, PA.
HARTFORD 1, CONN.
HIGH POINT, N. C.
HOMESTEAD, PA.
HOUSTON 1, TEXAS
INDIANAPOLIS 6, IND.
IOWA CITY, IOWA
JACKSON, MICH.
JACKSONVILLE 3, FLA.
JEANNETTE, PA.
JOPLIN, MO.
KALAMAZOO, MICH.
KANSAS CITY 6, MO.
KITTINGING, PA.
KNOXVILLE 12, TENN.
LACROSSE, WIS.
LANCASTER, PA.
LEXINGTON, KY.
LIMA, OHIO
LINCOLN 1, NEBR.
LITTLE ROCK, ARK.
LOUISVILLE 1, KY.
LYNCHBURG, VA.

MACON, GA.
MADISON 3, WIS.
MANCHESTER, N. H.
MANSFIELD, OHIO
MASON CITY, IOWA
McKEESPORT, PA.
MEMPHIS 1, TENN.
MIAMI 31, FLA.
MILWAUKEE 1, WIS.
MINEOLA, N. Y.
MINNEAPOLIS 15, MINN.
MOBILE 1, ALA.
MONTGOMERY 3, ALA.
MT. VERNON, N. Y.
MUSKEGON 4, MICH.
NASHVILLE 2, TENN.
NEWARK 8, N. J.
NEW CASTLE, PA.
NEW HAVEN 13, CONN.
NEW ORLEANS 1, LA.
NEW YORK (Brooklyn 1), N.Y.
OKLAHOMA CITY 2, OKLA.
OMAHA 1, NEBR.
OSHKOSH, WIS.
PADUCAH, KY.
PARKERSBURG, W. VA.
PEORIA 2, ILL.
PHILADELPHIA 32, PA.
PITTSBURGH 22, PA.
PORTSMOUTH, OHIO
PROVIDENCE 1, R. I.
RACINE, WIS.
READING, PA.
RICHMOND 3, VA.
ROANOKE 5, VA.

ROCHESTER 8, N. Y.
ROCKFORD, ILL.
SAGINAW, MICH.
ST. JOSEPH 7, MO.
ST. LOUIS 10, MO.
ST. PAUL 1, MINN.
SALINA, KANSAS
SAN ANTONIO 6, TEXAS
SAVANNAH, GA.
SCRANTON 9, PA.
SHREVEPORT 90, LA.
SIOUX FALLS, S. DAK.
SOUTH BEND 24, IND.
SPRINGFIELD, ILL.
SPRINGFIELD 5, MASS.
SPRINGFIELD, MO.
SPRINGFIELD, OHIO
SYRACUSE 1, N. Y.
TALLAHASSEE, FLA.
TAMPA 1, FLA.
TERRE HAUTE, IND.
TIFFIN, OHIO
TOLEDO 6, OHIO
TOPEKA, KAN.
TRENTON, N. J.
TULSA 1, OKLA.
UTICA 3, N. Y.
WASHINGTON 2, D. C.
WASHINGTON, PA.
WICHITA 1, KAN.
WILKES-BARRE, PA.
WILMINGTON, DEL.
WORCESTER, MASS.
YOUNGSTOWN 3, OHIO
ZANESVILLE, OHIO

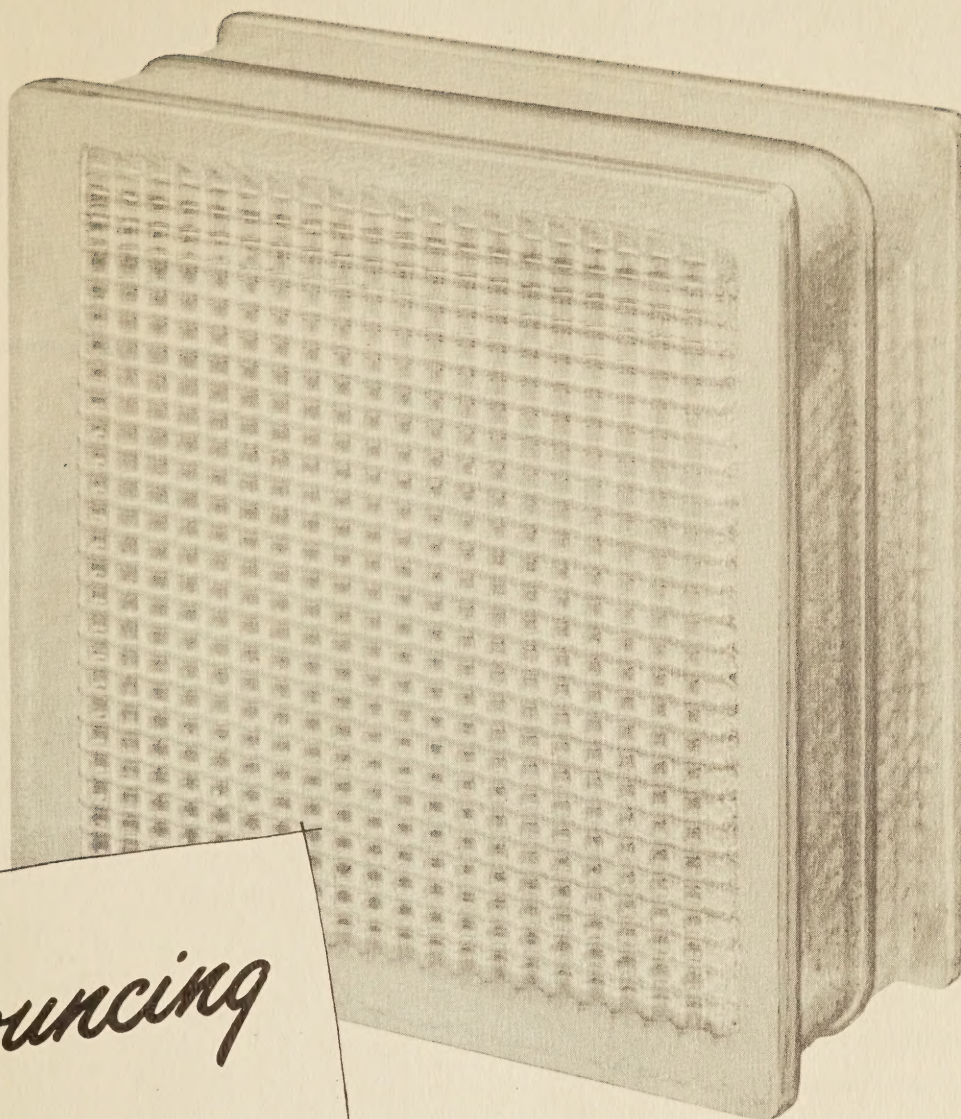
ON THE PACIFIC COAST, THROUGH THE BRANCHES OF W. P. FULLER & CO.

PHOENIX, ARIZ.
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ALAMEDA, CALIF.
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COMPTON, CALIF.
EUREKA, CALIF.
FRESNO, CALIF.
GLENDALE, CALIF.
HOLLYWOOD, CALIF.

HUNTINGTON PARK,
CALIF.
LONG BEACH, CALIF.
LOS ANGELES, CALIF.
MODESTO, CALIF.
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PASADENA, CALIF.
POMONA, CALIF.
RIVERSIDE, CALIF.
SACRAMENTO, CALIF.
SAN BERNARDINO, CALIF.
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SAN FRANCISCO, CALIF.
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SAN MATEO, CALIF.
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NAMPA, IDAHO
BILLINGS, MONT.
BUTTE, MONT.

MISSOULA, MONT.
EUGENE, ORE.
PORTLAND, ORE.
OGDEN, UTAH
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BELLINGHAM, WASH.
SEATTLE, WASH.
SPOKANE, WASH.
TACOMA, WASH.
VANCOUVER, WASH.
WALLA WALLA, WASH.
WENATCHEE, WASH.
YAKIMA, WASH.

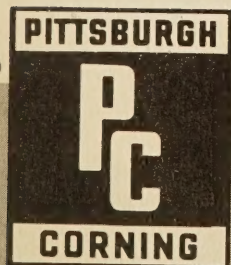


Announcing

. . . the newly-designed glass block,

PC SOFT-LITE PRISM B

—an important improvement in light control on sunlit exposures



PC Glass Blocks—The Mark of a Modern Building

PITTSBURGH CORNING CORPORATION

632 DUQUESNE WAY

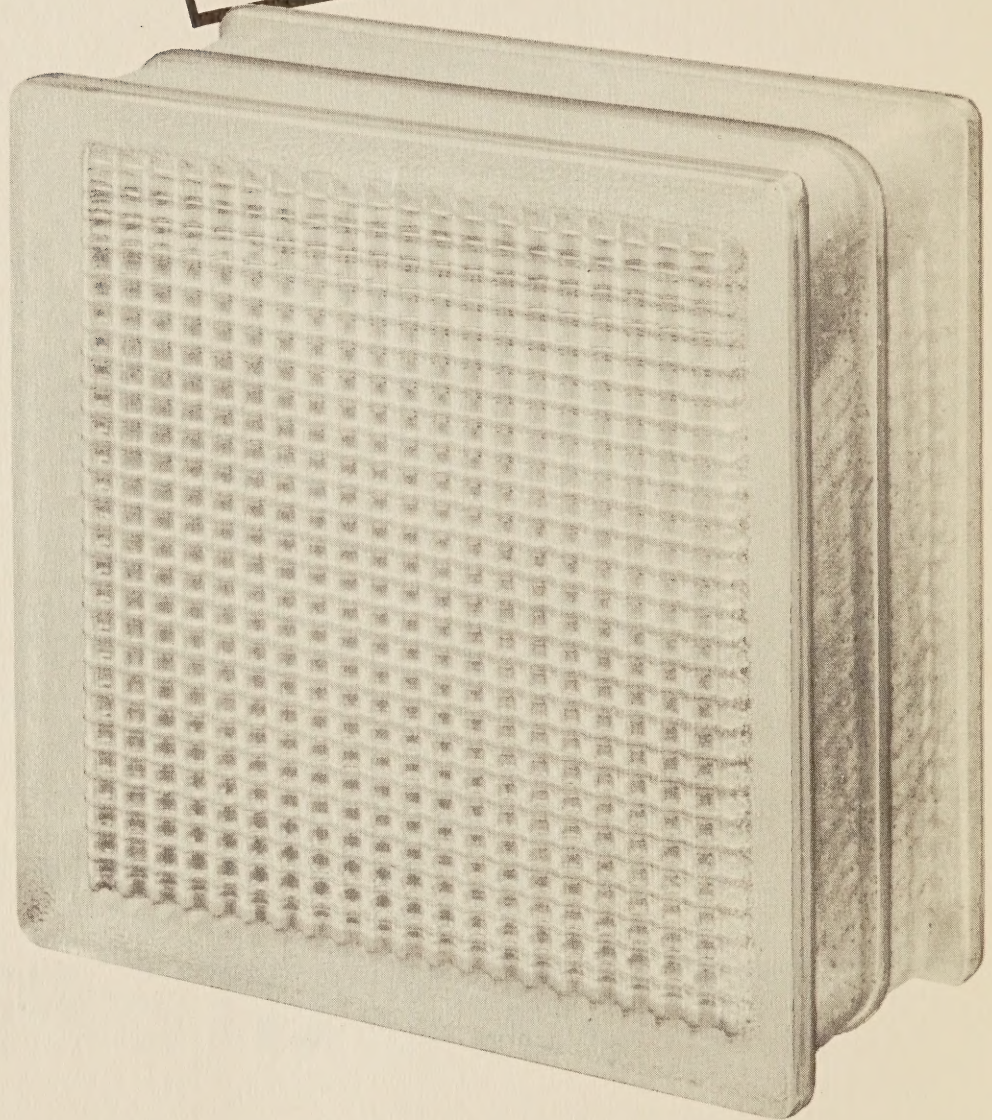
PITTSBURGH 22, PA.

For better control of THE REVOLUTIONARY NEW PC

Another *first* For

The long established leadership of Pittsburgh Corning Corporation in technical research in the glass block industry is being maintained by the introduction of our latest improvement in design and construction, the new PC Soft-Lite Prism B Glass Block.

Pittsburgh Corning was first to introduce the glass-to-glass seal, which made glass blocks a completely practical building material; first to eliminate light color changes by using water-white glass; first to introduce the general vision block (Vue pattern) still unequalled in its field; first to use a fibrous glass diffusing and insulating screen (LX-75 patterns); and now—after years of development work and test installations in different parts of the country—first to offer you the unique advantages embodied in PC Soft-Lite Prism B Glass Blocks.



ITS DISTINCTIVE FACE PATTERN makes the PC Soft-Lite Prism B Glass Block a thing of beauty as well as utility. In panels of all sizes and shapes, these blocks lend a new attractive note to the outer appearance of all sorts of buildings, harmonize with all types of architecture. PC Soft-Lite Prism B Glass Blocks embody all the familiar advantages of other PC patterns—excellent insulating properties, freedom from repairs and replacement, quick and easy cleaning—plus the unique ability to distribute softly diffused daylight over large areas on sun exposures.

PC GLASS BLOCKS...

AT
3158
P627
1947

daylight on sun exposures—

SOFT-LITE PRISM B GLASS BLOCK

Pittsburgh Corning

Meets Daylighting Needs

Lighting engineers have long recognized the need for an improved means of daylighting classrooms, large offices, factories and department stores where the light, coming from openings exposed to sunlight, must be softly diffused and evenly distributed over large areas. They felt the need also to minimize brightness contrasts in task areas and to eliminate excess brightness contrasts on room-side surfaces of glass blocks.

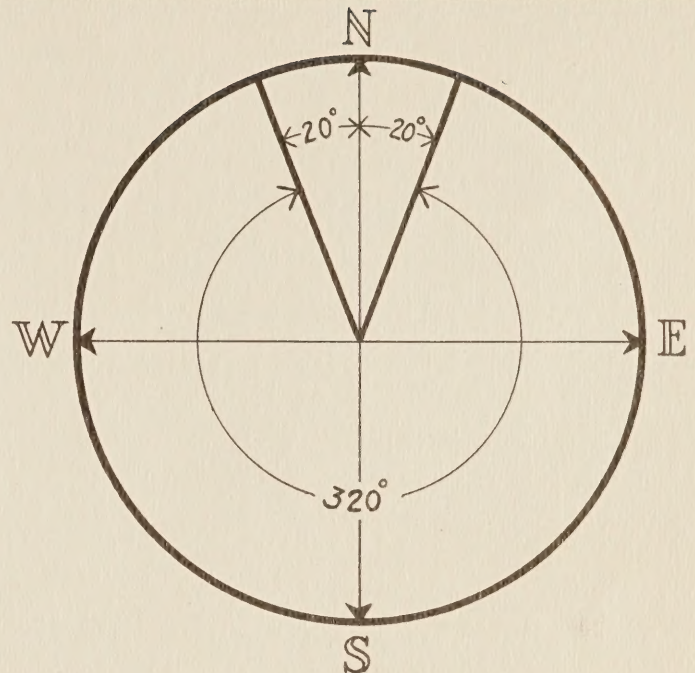
Under like conditions, the newly designed PC Soft-Lite Prism B Glass Blocks diffuse and refract incident daylight—including direct sunlight—over a greater area of reflecting ceiling, whence it is distributed more evenly over larger areas. The result is, more usable light in the right places.

New Prisms—New Soft-Lite Edge

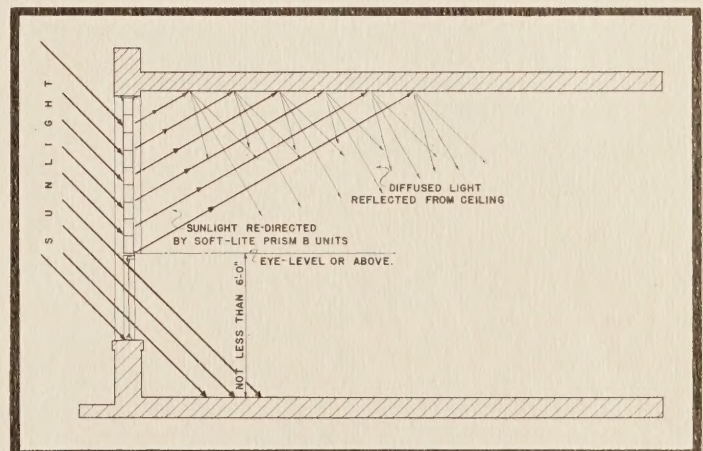
The lighting problems on East, South and West exposures include admittance of sufficient daylight without excess brightness, even on sunny days. This is accomplished—with PC Soft-Lite Prism B Glass Blocks—by a unique combination of interior prisms and the new Soft-Lite edge.

The prisms diffuse and direct the light to the reflecting ceiling whence it is distributed evenly over task areas. The Soft-Lite edge minimizes brightness contrasts between mortar joints, block edges and the remainder of the block face. In fact the new Soft-Lite edge transmits just enough light to provide a comfortable transition between the lighter block surface and the darker mortar joint.

If lighting rooms of all sizes in your buildings presents unusual problems, our lighting engineers will be glad to consult with you, to determine where and why you should use functional PC Glass Blocks to the best advantage. Also, we have recently published booklets—which give full information on the use of PC Glass Blocks in industrial, commercial and public buildings—which we shall be glad to mail to you without obligation. Just write to Pittsburgh Corning Corporation, Room 703-8, 632 Duquesne Way, Pittsburgh 22, Pa.



EAST, SOUTH, AND WEST EXPOSURES—comprising 320° of the compass—receive direct sunlight during certain hours of the day and seasons of the year. This chart illustrates this wide range of exposures where PC Soft-Lite Prism B Glass Blocks should be used to provide softly diffused, evenly distributed daylight without excess brightness contrast. The 20° exposures on each side of true North are practically never exposed to the sun's rays—hence, do not present such an exacting lighting problem.



This diagram shows typical light paths into a room from a panel of PC Soft-Lite Prism B Glass Blocks. Incident daylight is diverted to a wide area of reflecting ceiling, whence it is distributed evenly over large areas.

... The Mark of a Modern Building

(A MODULAR PRODUCT)

In addition to their special light-controlling properties

PC SOFT-LITE PRISM B GLASS BLOCKS

embody all these well-known advantages of other PC patterns

Better Lighting. PC Glass Blocks provide an abundance of clear, diffused daylight without color change. Larger light openings and continuous panels admit more daylight and distribute it over larger areas.

Better Insulation. PC Glass Blocks have more than twice the insulating value of ordinary windows. Each block contains a hollow, sealed-in air space that is an effective heat retardant, so panels of PC Glass Blocks consist of many insulating units, thus help maintain temperatures at desired levels and reduce heating costs.

The insulating properties of PC Glass Blocks also eliminate waste space due to cold spots, chilling drafts and down draft near windows, which interfere with machine operation and make people uncomfortable.

Less Condensation. The use of PC Glass Blocks often proves advantageous where surface condensation on windows is a problem. For moisture does not condense on the warm side of PC Glass Blocks except under extreme conditions of temperature and humidity.

Less Infiltration of Dust and Grit. Harmful dust and grit cannot filter through panels of PC Glass Blocks. Dangerous or offensive gases, smoke and soot, also are excluded, preventing damage to delicate machinery and goods in process.

More Privacy. Since PC Glass Blocks are translucent—but not transparent (except the Vue pattern)—they admit plenty of diffused daylight, but still preserve privacy. They cut off unsightly and distracting views, tend to confine inside noises and to exclude distracting sounds which originate outside.

Better Air Conditioning. The insulating properties of PC Glass Blocks assure less heat loss in winter, less heat gain in summer. Solar heat transmission and radiation are reduced. All of which results in actual money savings and less wear and tear on heating and air-conditioning equipment.

Easier Cleaning. Large panels of PC Glass Blocks can be cleaned as single units. There are no small panes or muntins, so the smooth glass surface can be covered in one sweep. Translucent panels of PC Glass Blocks look clean long after ordinary windows would look streaked and spotty.

Lower Maintenance Cost. With PC Glass Blocks there is no window sash to check, rot or rust, to need replacement or repainting. There are no fragile panes of glass to need frequent replacement. The blocks are not easily marred or broken. If replacement of a single block should become necessary, it can be done easily by any mason.

Easier Installation. Masons find PC Glass Blocks easy to lay. Their edge construction forms a "key-lock" mortar joint, providing a full bed of mortar, yet permitting a visible joint of only about $\frac{1}{4}$ inch, resulting in a trim panel that is pleasing to the eye. The "key-lock" joint is also easier to handle in laying.

*For further information or any technical data you need, write to Pittsburgh Corning Corporation,
632 Duquesne Way, Pittsburgh 22, Pa. Also makers of PC Foamglas Insulation.*

Manufactured by
PITTSBURGH CORNING CORPORATION

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PITTSBURGH PLATE GLASS COMPANY

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and by Hobbs Glass Ltd. in Canada